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ABSTRACT

A workshop on "Curriculum for Early Childhood Education," held in the summer of 1979 at the Kenya Institute of Education, aimed to familiarize participants with the problems facing early childhood education in Africa. Specific workshop objectives were (1) to familiarize participants with the psychological, social, political, and economic factors influencing the young African child; (2) to enable participants to apply educational implications inferred from the first objective; and (3) to inculcate necessary skills for designing curriculum for early childhood education in Africa. This document, the second of two volumes on the workshop, presents the proceedings of the practical sessions and examples of the curriculum materials that were developed by participants. The volume is divided into four sections: developing language skills in early childhood; developing scientific, computational, and manipulative skills in early childhood; using local resources and materials for educational toys; and caring for children with special educational needs. Lesson plans are provided as well as instructions for producing classroom materials. The curriculum materials are keyed to the appropriate ages of children. A rationale for each of the different curricula is also presented. (Author/DB)

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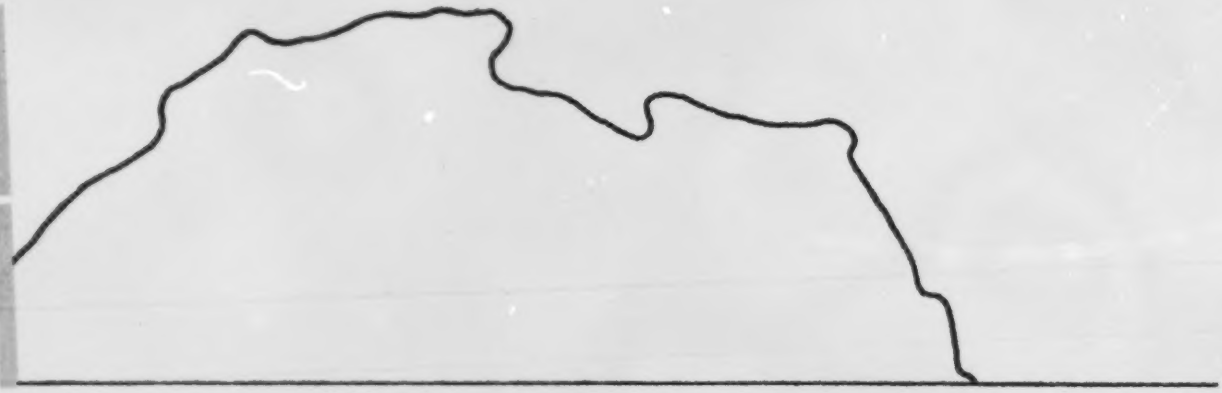

Curriculum for Early Childhood Education

VOLUME 2

PS012397

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A report of a workshop held at the Kenya Institute of Education from 16th. July to 3rd. August 1979

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PREFACE

A series of annual workshops have been jointly organised by the African Curriculum Organisation (ACO) and the German Foundation for International Development (DSE) since 1976. The following is a report of the third in the series. The theme of the third annual workshop was "Curriculum for Early Childhood Education" and was hosted by the Kenya Institute of Education, Nairobi, from 16th July to 3rd August, 1979. It is hoped that this workshop will stimulate further rethinking into the needs and problems facing early childhood education on the continent.

I would like to express my gratitude to the African Curriculum Organisation and the German Foundation for International Development without whom this workshop would not have been convened. Thanks also to the consultants and the participants for working so tirelessly to make the workshop such a success; and everyone else who offered their dedicated service during the planning and running of the workshop. Finally I would like to thank Margaret Kabiru, Ahmed Ndalu and Hosea Ng'ang'a for compiling this report.

H.J. Kanina
DIRECTOR
KENYA INSTITUTE OF EDUCATION

INTRODUCTION

The workshop on "Curriculum for Early Childhood Education" which was held at the Kenya Institute of Education from 16th July to 3rd August, 1979, is one of the achievements of the African Curriculum Organisation (ACO). This workshop leads to the realisation of one of the major undertakings of ACO, that is, the training of manpower in the area of curriculum development. To this end, the organisation, with the assistance of the German Foundation for International Development (DSE), has organised two such workshops since its inauguration in September, 1976.

The purpose of the workshop was to sensitize participants with the problems facing early childhood education in Africa. Dedication to the education of the young child was a special contribution to the International Year of the Child. The specific objectives of the workshop were:

(i) to sensitize participants with the psychological problems, social, political and economic environment of the African child in his early years.

(ii) to enable participants to draw appropriate lessons from (i) for catering for educational needs of the early childhood education.

(iii) to inculcate the skills necessary for the design of curriculum and sample materials for early childhood education in African countries.

The participants who were sponsored by their Curriculum Development Centres represented 18 African Countries. The consultants were drawn from African Curriculum Centres and Universities, the German Foundation for International Development, UNESCO Regional Office Daka and UNESCO Institute for Education, Hamburg. Observers from Local Institutions and International Organisations like UNICEF also attended the workshop.

Plenary sessions were held during the first week of the workshop to discuss leading papers and raise other general issues. The last two weeks were set aside for practical sessions. These were undertaken in four phases:-

(i) group discussions and elaboration of methods of work

(ii) groups working separately

(iii) plenary for intergroup exchange ideas

(iv) plenaries for discussions on specialised topics, problems or information.

There were four working groups for the practical sessions.

The report is in two volumes. Volume I deals with the general proceedings of the workshop. It includes the following sections:

Part	I	-	Foundation papers
Part	II	-	Country profiles
Part	III	-	Working group reports
Part	IV	-	Opening session addresses
Part	V	-	Evaluation of the workshop

Volume II presents the proceeding of the practical sessions and examples of the curriculum materials that were developed. It is divided into four sections:-

Part	I	-	Developing Language Skills in Early Childhood.
Part	II	-	Developing Scientific behaviour, Computational and Manipulative skills in Early Childhood.
Part	III	-	Using Local Resources and Materials for Education Toys in African Countries
Part	IV	-	Catering for Children with Special Needs.

July, 1980

DEVELOPING LANGUAGE SKILLS IN EARLY CHILDHOOD EDUCATION

Composition of the group

Consultants:

Chairman:	Dr. PAI Obanya	-	Nigeria
	Miss E. Gatua	-	Kenya
	Mr. K. Maane	-	Gambia
	Miss B. Jones	-	Cameroon.

Participants:

G. Aberra	-	Ethiopia
M. Bwimana	-	Burundi
M.M. Gakunga	-	Kenya
S.S. Jatta	-	Gambia
P.M. Kaphe	-	Lesotho
P. Kiarie	-	Kenya
M. Kimani	-	Kenya
H.M. Mkweteza	-	Malawi
G.S. Mwale	-	Zambia
Mto Mugambi	-	Kenya
M. Ojuando	-	Kenya
H. Sesay	-	Sierra Leone
E. Tuwangye	-	Uganda
M. Wamwongo	-	Kenya
L. Wangera	-	Kenya

Procedure:

Dr. Pai presented a suggested work schedule which was discussed and approved after some suggested additions.

Work Schedule

1. Self Introduction:
   - Name/Address
   - Type of training
   - Kind and length of experience
   - Current curriculum development efforts, etc.

2. Typology of Language Situations/Language in Early Childhood Education in the Countries Represented

   (Members of Group Interviewing fellow participants and drawing up a chart.)

3. Thoughts on Language Teaching in Early Childhood Education (Ms. Jones).

4. Early Childhood Language Programmes at the Kenya Institute of Education (Ms. Gatua)

5. Material production for Early Childhood Language Education in other countries.

6. Curriculum Guidelines (work in small groups on curriculum guidelines related to peculiar situations).

7. Discussion/Modification of Curriculum Guidelines produced by the groups.

8. Consideration of (and possible production) of Sample Curriculum Materials: e.g.

   i. Language Games
   ii. Pre-Reading Materials/Reading Materials.
   iii. Audio - Oral Materials
   iv. Teachers' Guides for Early Childhood Language Teaching.

Profile of Language situation in various African Countries

The profile is intended to give a clear picture of the language situation/language education policies/practices in the various African Countries represented at the workshop. The participants began work by interviewing each other as well as other people with a view to obtaining some background information about what is happening in each of the countries.

Having assembled the various background information, the group then mapped them out on a chart which is here attached.

The chart indicates the following:

- Estimated population of the country
- Estimated number of languages in the country
- National language(s)
- Official language(s)
- Language of instruction at primary level
- Other languages taught at primary level.

As parts of the background presentation, two papers were laid by Miss E. Gatua and Miss B. Jones respectively. Miss Gatua's paper is entitled "Early Childhood Language Programme at the Kenya Institute of Education", it deals with pre-school language programmes as well as with language situation in primary schools and goes on to talk about the materials being developed in the mother tongue (cf. T.K.K. series). The title of Miss Jones paper is "Developing Language Skills in Early Childhood", bearing the sub-title, ("Curriculum Design & Production of Related Samples Material") Example from Cameroon.

In a genral way, her papsr deals with the problems of language teaching, language skills and the development of the latter and curriculum design.

Mr. Mwale (Zambia) also talked about the problem of Curriculum Development in Zambia and the work that their centre is doing on the 7 selected National Languages.

(See Table next page)

Division in to Sub-Groups:

The division into sub-groups followed and was based on the pattern of the three main areas - delimited in the language profile.

These are:
1. Home Language or Mother Tongue
2. Area Language (A.L.)
3. European Language (EL).

Whereas (EL) is the language of instruction throughout the whole primary course, for instance in the case of the Gambia, Liberia and Sierra Leone, in the majority of the cases it is either (HL) or (AL) or both which serves as the medium of instruction in the first three or four years of the primary course. (AL) serves as the medium of instruction throughout the whole primary course in two instances, e.g. Ethiopia and Tanzania. The task assigned to each of the three sub-groups was to study and work on the possibilities of developing curricula guidelines in each of the three delimited areas viz. (HL), (AL) and (EL).

LANGUAGE IN PRIMARY EDUCATION IN AFRICA

A = Home Language
B = Area Language
C = European Language
D = Another (distant) African Language
E = Arabic
F = Official Non-European Language

COUNTRY	Est Pop.	Est. No. of Lang.	Nat. Lang.	Off. Lang.	Language of Instruction								Other Language Taught							
					P1	P2	P3	P4	P5	P6	P7	P8	P1	P2	P3	P4	P5	P6	P7	P8
1. Botswana	0.743M	5	B	C	B	B	B	C	C	C	C		C	C	C	B	B	B	B	-
2. Burundi	4.0M	1	A	A/C	A	A	A	A	A	A	-	-	-	-	C	C	C	C	-	-
3. Cameroon	6.5M	-	C1/C2	C1/C2	C1	C1	C1	C1	C1	C1	-	-	-	-	-	C2	C2	C2	-	-
4. Ethiopia	28.0M	75	B	B	B	B	B	B	B	B	-	-	-	-	-	C	C	C	-	-
5. Gambia	0.5M	*10(3)	B	C	C	C	C	C	C	C	-	-	E	E	E	E	E	E	-	-
6. Ghana	10.0M	11	C	C	A/B	A/B	A/B	C	C	C	-	-	C	C	C	A/B	A/B	A/B	-	-
7. Kenya	14.5M	40	F	C	A	A	A	C	C	C	C	-	C/F	C/F	C/F	C/F	C/F	C/F	C/F	-
8. Lesotho	2.0M	1	A	A/C	A	A	A	A	C	C	C	-	C	C	C	C	A	A	A	-
9. Liberia	1.5M	28	C	C	C	C	C	C	C	C	-	-	-	-	-	-	-	-	-	-
10. Malawi	5.0M	10	B	B/C	B	B	B	B	C	C	C	C	C	C	C	C	B	B	B	B
11. Mauritius	1.0M	12	B/A	C1	C1	C1	C1	C1	C1	C1	-	-	A/C2	A/C2	A/C2	A/C2	A/C2	A/C2	-	-
12. Nigeria	80.0M	200	C	C	A	A	A	C	C	C	-	-	C	C	C	A	A	A	-	-

13. Sierra Leone	3.0M	13	C	C	C	C	C	C	C	C	C	-	-	-	-	-	-	-	-	-
14. Swaziland	0.6M	3	B	C	B	B	B	B	C	C	C	-	C	C	C	C	B	B	B	-
15. Tanzania	17.0M	125	F	F	F	F	F	F	F	F	F	-	C	C	C	C	C	C	C	-
16. Uganda	10.0M	**45	C	C	A/B	A/B	A/B	C	C	C	C	-	C	C	C	A/B	A/B	A/B	A/B	-
17. Zambia	6.0M	***40	C	C	C	C	C	C	C	C	C	-	A/B	A/B	A/B	A/B	A/B	A/B	A/B	-

*10(3) = out of the 10 languages 3 are being promoted
**45(6) = out of the 45 languages 6 are being promoted
***40(7) = out of the 40 languages 7 are being promoted

Membership of the groups is as follows:

(a) Sub-Group 1 Home Language (HL)

- Consultant:	E. Gatua	-	Kenya
- Participants:	M. Bwimana	-	Burundi
	G.S. Mwale	-	Zambia
	H. Sesay	-	Sierra Leone
	E. Tuwangye	-	Uganda
	M. Wamwongo	-	Kenya

(b) Sub-Group 2 Area Language (AL)

- Consultants:	Dr. Pai Obanya	-	Nigeria
	K. Maane	-	Gambia
- Participants:	G. Aberra	-	Ethiopia
	S.S. Jatta	-	Gambia
	P. Kiarie.	-	Kenya
	M. Kimani	-	Kenya
	M. M'kweteza	-	Malawi
	M. Ojuando	-	Kenya

(c) Sub-Group 3 European Language (EL)

- Consultant:	B. Jones	-	Cameroon
- Participants:	M.N. Gakunga	-	Kenya
	P.M. Kaphe	-	Lesotho
	A.F. Mto Mugambi	-	Kenya
	L. Wandera	-	Kenya

Guidelines Proposed:

The procedure in each of the three sub-groups was to first define the concepts (HL), (AL) and (EL), after which the characteristics of learners in pre-school and primary school were equally defined.

Attempts were then made in each sub-group, to set out specific learning objectives, in both the pre-school and primary school domains, which are to be accomplished in accordance with the age and stage the learners have reached.

These objectives are contained in the three documents the sub-groups have produced.

In addition to the objectives, the groups have equally timed to specify the type of contents - the objectives should have, as well as the sort of materials and methods that can be deployed to drive the objectives home.

Rationale for production of Materials:

Sub-Group B: In this group the rationale has been to produce materials only in those areas where participants encounter difficulties and would therefore need some sort training to enable them surmount those difficulties. Encouragement was therefore given to participants to try their hands at producing materials in those areas.

Sub-Group C: Here the participants directed their efforts into producing materials for the first English lessons at primary one level.

LIST OF SAMPLE MATERIALS PRODUCED

Sub-Group A: HOME LANGUAGES

Title	Description/Purpose	Producer(s)
1. Mupmari	Stories for P1	Hannah Sesay Sierra Leone
2. K n ?	Reading Activity for P1	Hannah Sesay Sierra Leone
3. Sewelo la Malonda Ang'ombe	Cattle buying and selling game for language reading practice for P2 and P3	Goodson Mwale Zambia
4. Migani 'inkino	A book of tales and language games for P2 and P3	Bwimana M. Burundi
5. Dusome	Reading sentences and build them with cut words for P1	Bwimana M. Burundi
6. Ducape	A book of pupils drawing with a sentence for each drawing/for P1 and P2.	Bwimana M. Burundi
7. Kumenya ico uwundi yari kuvuga	Cartoons for P1 or P2.	Bwimana M. Burundi
8. Sewelo lazipatso	Vocabulary tree game for language reading practice for P1	Goodson Mwale/ Zambia Hannah Sesay/ Sierra Leone
9. Mwambi wa Nsingano ndi uzi	A story about needle and cotton thread. The story projects an argument about who does more work than the other. Needle or Cotton thread? P3	Goodson Mwale/ Zambia

Title	Description/Purpose	Producer(s)
10. Cifukwa Cimene Nthiwatiwa ali ndi Khosi lalitali	A story about why an ostrich has a long neck for P2 and P3	Goodson Mwale/ Zambia
11. Kuruga aha Rwokubanza	Supplementary Reader-Class Library for P2	E. Tuwaugye Uganda
12. Reading	Reading supplementary material - Reading and matching exercise for P1 and P2.	E. Tuwangye Uganda
13. Picture/Story Reading Chart	Reading Supplementary Material - Reading and Comprehension Exercise for P1 and P2.	E. Tuwangye Uganda
14. Word Tray	Reading material Picture/Word Matching Exercise for P1	E. Tuwangye Uganda
15. Handiika ahari ebi	Picture cards - topics for Creative Writing Exercises for P2 and P3.	E. Tuwangye Uganda
16. Picture Talk Material	Picture for use in Oral Expression Development for Pre-School and P1	E. Tuwangye Uganda
17. Eduuka Yaitu	Story based on class Shop - Reading Supplementary Material for P1 and P2.	E. Tuwangye Uganda
18. Kwa Nyamu Cia Githaka	A multipurpose picture with accompaning story and comprehension questions - for developing Oral Expression, Reading and Writing Skills for P2.	Miss E. Gatua Kenya and E. Tuwangye Uganda

	Title	Description/Purpose	Producers
19.	Shoma	Picture/Word comprehention questions reading material, for development of Oral Expression/Reading and Writing Skills for P1 and P2.	E. Tuwangye Uganda
20.	Picture/ Word Material.	Picture word material for developing oral expression, auditory discrimination and visual discrimination, for Pre-School and P1	M. Wamwongo Kenya
21.	Flannel Board Pictures	Pictures for development of oral expression and reading skills, for P1 and Pre-School	Miss E. Gatua Kenya and E. Tuwangye Uganda
22.	Rugano rwa Tuiritu Tutatu tunini	Reading material story with comprehan-sion questions.	Miss E. Gatua Kenya
23.	Tumathako twa Ruthiomi rwa Gikuyu	Traditional games for development of vocabulary, memory auditory discrimination, and visual discrimination. Also played for pleasure and transmission of culture	Miss E. Gatua Kenya
24.	Jigsaw	Teacher made jigsaw for visual discrimina-tion, hand eye co-ordination and hand muscle development, for Pre-School and P1	E. Tuwangye Uganda

SAMPLE MATERIALS PRODUCED

Sub-Group B: AREA LANGUAGE

Title	Description/Purpose	Producer(s)
1. Kee Tilimbaloo	A story in Mandinka for Primary 1	K. Maane and S.S. Jatta
2. Nyimbo na Michezo	A collection of Poems and Songs in Kiswahili for Primary 1	M.W. Kimani
3. Funf 73	An illustrated Amharic Reader for Primary II	Ato Gulilat Aberra
4. Hamida	Training in self-expression in Kiswahili for Primary II	Margaret Ojuando
5. Kukula ndi Mwambo	Training in Chichewa Phatic Ommunion for Primary I.	Masanko Mkweteza
6. Kufundisha Kiswahili	Religious Concepts in Kiswahili for Pre-Primary Classes	Peter Kiarie Wa Njoroge

Sub-Group C: EUROPEAN LANGUAGE (EL)

Unit 1 of an English Medium Course	Scheme and Content + Sample of each type of Lesson + Global items to be used as part of the Unit (i.e. rhyme, dialogues, stories) + Games for Consolidation Work + Guidelines for constructing such a Unit stating all the Constraints imposed by the use of a foreign medium	Mto Mugambi A.F. P.M. Kaphe L. Wandera B. Jones M.N. Gakunga

CURRICULUM GUIDELINES FOR EARLY CHILDHOOD EDUCATION IN HOME LANGUAGE (MOTHER TONGUE)

Edreda Tugwangye	-	Uganda
Mary Bwimana	-	Burundi
Hannah Sesay	-	Sierra Leone
Goodson Mwale	-	Zambia
Margaret Wamwongo	-	Kenya
Elizabeth Gatua	-	Kenya

The concept of Home Language (HL)

(a) Definition:

The child's mother tongue is his first language, i.e. the language of the home, hence the use of the terminology home language (HL). In the African Education system we have countries which use the home language as the medium of instruction in pre-school institutions and lower primary classes.

(b) Examples of such countries include Burundi, Lesotho, Kenya and Nigeria.

(c) Rationale for Mother Tongue Medium in Childhood Education

(i) Nothing is ever closer to a child, a more intimate part of his very personality, than the language in which he learns to express his first thoughts and in which he develops his relationships with those upon whom his early life depends. Therefore, if the child's experience with education in school provides little or no time for his mother tongue, he will unfortunately conclude that education has little to do with real life around him and that his Mother Tongue is inferior and so is himself. Furthermore, his spontaneous responses during learning activities will be suppressed.

(c) (ii) There is no more favourable means of rapport between the teacher and a child on his first few years at school than a child's mother tongue. Therefore the child should be taught subject content in the language he already knows so as to avoid overloading him with double concentration on the learning of that other language as well as the subject content.

(iii) The child's ideas and thoughts are in his own language, and will be long after he is speaking quite good English or French. If the child is to be encouraged to THINK for himself, as stated in different countries, broad educational objectives, he must be helped to think in his own language. To use a language other than his Mother Tongue will slow down the learning process.

(iv) Mother Tongue is the child's contact with his home, his family and his local community. It bridges the gap between home and school, which should be a harmomious extension of the home.

(v) The culture of his people is found in the child's Mother Tongue. It should be taught in such a way that the child can appreciate the literature, stories, songs, poems/riddles proverbs etc., of his people and that of others in and outside his own country.

Characteristics of learners in Pre-School and Lower Primary Classes

Early childhood education institutions provide for children whose differences cannot be over-emphasised. For example:

(a) Pre-School Institutions age range is one to five years.

(b) The Lower Primary School age range is six to nine plus years although we find special cases of children starting earlier than six and others later than six years.

(c) Children join Pre-School Institutions with little language experience.

(d) Some children come to primary schools with Pre-School experience while others come straight from home. Their experiences are therefore varied.

(e) All these children come from different home environments with varied behaviour, personality, physical, intellectual differences and language competence.

Broad National Goals

African countries have different sets of educational objectives. However, some countries have one common objective which advocates the development of communication skills: the acquisition of literacy and numeracy in home languages.

Curriculum Objectives

An effective Early Childhood Education Curriculum should therefore aim towards enabling the achievement of the national goals. By the time a child leaves Early Childhood Education Classes (Pre-School Institutions and Lower Primary Classes 1 to 4) he should be able to:

(i) Listen with understanding and respond appropriately.

(ii) Speak, intelligibly, fluently and confidently with acceptable speech habits and a sense of pride appreciating his home language as a language worthy of respect and use.

(iii) Acquire everyday vocabulary and basic sentence patterns to enable him to communicate freely and appropriately in school, at home and in his community.

(iv) Understand and use simple figures of speech, riddles, proverbs, songs, dances and other literary compositions thus developing in the child an awareness of the literary heritage of his people.

(v) Acquire and develop reading and writing readiness skills as a spring-board for learning literacy skills for both home language and other languages.

(vi) Acquire and develop reading and writing skills to enable him to communicate freely and appropriately.

Pre-School

OBJECTIVES	CONTENT	LEARNING ACTIVITIES	REFERENCE APPARATUS MATERIAL	METHODS
(i) The child should be able to listen with understanding and respond appropriately.	Developing Speech and Auditory Discrimination. Speech exercises Rhymes, Songs and Dances.	Doing speech exercises selected. Listening to rhymes, songs and dances. Singing/Saying with actions.	Percussion instruments Costumes Taped material Pictures, Photographs, Objects, Puppets, Masks Clay, Paint, Paper small chalk boards.	Direct/Associative Look/Listen Say/Use technique
(ii) The child should be able to speak intelligibly, fluently and confidently with acceptable speech habits and a sense of pride, appreciating his home language as worthy of respect.	Riddles, stories dialogues, language games, messages. Forms of greetings picture describing/ discussion	Dancing Illustrating-drawing modelling painting. Asking/Answering questions Listening to and telling stories. Listening to dialogues, cultural games and language games and playing greeting patterns/listening to riddles, discussing and answering questions	The TV box Flannel graph Pictures-story sequence composite etc., wall charts, costumes, taped materials, paint, clay, puppets, masks	Direct/Association Story telling Dramatization Miming Discussing Play way -
(iii) The child should be able to acquire sufficient command of vocabulary and sentence patterns to enable him to communicate freely and appropriately in school, at home and in his community.		Messages interpretation Explaining differences/ similarities. Describing and discussing pictures, models, objects given topics: Drawing, painting, modelling, Acting. Asking and Answering questions.		

OBJECTIVES	CONTENT	LEARNING OBJECTIVES	REFERENCE APPARATUS MATERIAL	METHODS
(iv) The child should be able to understand and use simple figures of speech, riddles, proverbs, songs dances, thus developing in him an awareness of the literary heritage of his people	Instructions and information.	Listening to receiving giving and responding to instructions and information, discussing, asking and answering questions.	Materials for selected instructions, games and information	Direct/Associative Look, listen say/use technique Discussion
	Designed plays	Role playing, involving speaking, listening giving instructions receiving and responding to instructions and information.	Costumes scrap material for various play etc., Dolls, Clay, Sand, Masks.	Playway Dramatization Activity

OBJECTIVES	CONTENT	LEARNING ACTIVITIES	REFERENCE APPARATUS MATERIAL	METHODS
(v) The child should be able to acquire reading and writing readiness skills as a spring-board for both home language and other languages	Visual discrimination Left to right eye movement, top to bottom progression	Identifying similarities/differences in objects, pictures according to colour, shape, size detail etc. Looking at and reading pictures books-naming pictures building stories. Drawing and colouring starting from left to right and from top to bottom Sequencing objects e.g. from left to right direction. Doing find the path exercises. Discussing and forming stories using story sequence pictures watching and discussing, teachers' acted scenes as she acts moving from left to right of class-room.	Collections of pictures, Shapes Objects Dominoes Jigsaws and other games and puzzles Story sequence pictures, objects, pictures, wall charts for the various exercises.	Direct/Associative Story telling Play way Activity

N.B.

For the purpose of continuity in the child's learning, it is important that language skills progress records should be well kept for each child and in every class and that these should be handed/taken over by teachers concerned. Each child should be let to progress at his own pace. Therefore work which has not been covered in one particular class should not be overlooked. Therefore learning experiences from the previous class are carried on to the next class and further developed as indicated in the curriculum guidelines.

Primary 1- 2 Home Language Curriculum Guidelines

OBJECTIVES	CONTENT	LEARNING ACTIVITIES	REFERENCE APPARATUS MATERIALS	METHOD
i. The child should be able to listen with understanding and respond appropriately. ii. The child should be able to acquire sufficient command of vocabulary and sentence patterns to enable him to communicate freely and appropriately in school, at home and in his community.	As for pre-school			
iii. The child should be able to speak intelligibly, fluently and confidently with acceptable speech habits and a sense of pride appreciating his home language as worthy of respect and use.	Helpers/Weather Calendar/Birthday discussion.	Discussing helpers/ weather/calender/ birthday and recording. Asking and answering questions.	Helpers, Weather, Calendar, Birthday, Charts.	Direct/ Associative Discussion Question and Answer.

OBJECTIVES	CONTENT	LEARNING ACTIVITIES	REFERENCE APPARATUS MATERIALS	METHOD
iv. The child should be able to understand and use figures of speech, riddles, proverbs, songs, dances, etc., thus developing and awareness of the literary heritage of his people.	Simple proverbs lyrics cultural games individual experience.	Listening to and telling and saying simple proverbs and lyrics - Asking and answering questions. - Listening to instructions and playing cultural games. - Describing personal experiences.	Taped material Pictures, Charts other relevant materials, e.g. scare crows.	Story telling Discussion, Dramatization, Play way, Direct/ Associative, Questions and answers.
v. The child should be able to acquire reading and writing readiness skills as a springboard for both home language and other languages.	Discovering through maze cartoons interpretation.	Picture reading - reaching a destination through maze making scrap books, interpreting cartoons. Asking and answering questions.	Wall charts pictures scrap books, cartoons friezes.	Discussion, Direct/ Associative question and answers.

OBJECTIVES	CONTENT	LEARNING ACTIVITIES	REFERENCE APPARATUS MATERIALS	METHODS
vi. The child should be able to acquire reading and writing skills.	Reading: words sentences letters stories. Writing: letter formation patterns words sentences stories.	- Reading words/sentences/stories/ letters. - Word and sentence building. - Letter/word modelling - Matching exercises using letters/ words/sentences. - Drawing and labelling - Copying and writing letters/words/ sentences - Filling missing letters/words in given words/sentences. - Answering comprehension questions. - Playing phonic games e.g. spelling quizzes. - Reading from children's scrap books and teacher made booklets. - Writing rhythmic patterns using different media. - Forming letters print and the recommended style. - Reading for information and pleasure. - Writing words and sentences.	Flash cards Flash boards Pictures Puzzles Cut up letters and sentences Recommended Readers Teacher/Child made booklets.	Look/say word/ sentence whole. Phonic/syllabus Substitution technique Question and answers Discussion Direct/Association. Language Experience approach.

Primary 3 and 4 - Home Language

OBJECTIVES	CONTENT	LEARNING ACTIVITIES	REFERENCE APPARATUS MATERIALS	METHODS
i. As for Primary 1 and 2	As for Primary 1 and 2 Games and activities to reinforce learning of grammar e.g. - word building - synonyms - opposites - positive - negative - tenses - parts of speech - question forms - broadcasts - dictionary use - story comprehension - creative work	- Playing language games for recommended grammar. - Learning to use and using the dictionary - Answering questions based on radio broadcasts, and taped materials. - Answering questions based on story read by the teacher - Impromptu speeches. - Debates - Discussions - Drama.	Necessary apparatus and material for selected games. Course books Teacher-made stories Pictures Cards for impromptu speeches.	-Direct/Associative -Discussion -Substitution -Objective

OBJECTIVES	CONTENT	LEARNING ACTIVITIES	REFERENCES APPARATUS MATERIALS	METHODS
vii. Acquire and develop reading and writing skills to enable him to communicate freely and appropriately.	Simple and written compositions. Dictation (Punctuation) Poetry	Writing and reading stories. Reading from class library Doing creative Writing exercises. Oral composition exercises Writing simple-compositions Reading for pleasure speed and information. Reading notices from notice boards. Write/Read short poems. Writing dictated paragraphs	Class library Scrap material Course books	

CURRICULUM GUIDELINES FOR EARLY CHILDHOOD EDUCATION IN AN AREA LANGUAGE

Peter Kiaria - Kenya
Magdalene Kimani - Kenya
Margaret Ojuando - Kenya
Ato Gulilat Aberra - Ethiopia
Sidia Jatta - Gambia
Masauko Mkwetuza - Malawi
Pai Obanya.

The concept of Area Language

Most societies in Africa are multi-lingual. It is, therefore, not possible for the moment at least to develop and to teach them all in schools. For historical reasons some of these languages have attained demographic, sociological, political and economical prestige and have tended to be more easily acceptable to wider audience.

The languages are parallel to home languages. So in some cases children learn them simultaneously with the home language. In other cases everyone in the area is exposed to the area language through the mass media, the schools, and oral forms of inter-personal contact.

Examples of area languages are:

(a) Kiswahili in Eastern Africa
(b) Krio in some parts of West Africa
(c) Mandinka in West Africa
(d) Chichewa in Malawi
(e) Amharic in Ethiopia
(f) Wolof in Sene - Gambia
(g) Lingala in Central Africa.

In some places, e.g. Ethiopia, Kenya and Tanzania, these languages have become the National Languages.

Characteristics of Early Childhood Learners of Area

Area Languages in Africa

The children catered for would have the following characteristics:

(a) Biological or chronological age: 3 to 10 years.

(b) The Environment

(i) The children of rural peasants. These children have had no formal pre-school education, no books, toys and colourful things.

(ii) The children of urban dwellers. These children because of the conditions existing in the area they live in have to learn in the area language though at home they communicate in the Mother-Tongue.

(c) Observable Linguistic Behaviour

In most cases these children can express themselves confidently in their home language. They can express most of their needs e.g. feelings, desires, exchange courtesies, argue among themselves and describe situations and events.

In the home language exposure is usually uniform whereas in the area language what the children are able to do will depend on age, level of exposure, and degree of experiences with the language. For instance those who have intermingled with people who speak the area language as their home language will have a high degree of competence. Those who are further from the area where the area language is a home language will be less competent. Others who are exposed to mass media and other various forms of communication are more competent in the area language.

Objectives of Learning an Area Language in Early Childhood

Preamble:

(a) Early childhood education should lay a solid foundation for further learning. Most human interaction and learning is done through language.

(b) What children learn in language has to be related to their environment so as to reduce the effects of alienation.

(c) The language taught in school should be related to the level of the child's development - physical, social, mental, linguistic and psychomotor.

(d) Area languages are meant to reduce linguistic diversity among peoples and so help to promote national unity.

Specific Objectives

(a) Formal Pre-School years (3 - 5 Years)

To acquire and/or improve audio/oral proficiency in the area language for:

(i) Social interaction with others (listening and responding correctly to the oral language used correct exchange of greetings and responses, courtesy, politeness, etc.)

(ii) Personality development (recognising and understanding his/others emotions, moods, feelings, problems, etc.)

(iii) Development of cognitive skills (concept formation, recognising/describing familiar objects, events situations.)

(iv) Using language to develop the psycho-vocal motor skills (appropriate rhymes, riddles, songs in the area language that go with children's games and other physical activities.

(b) The first two years of formal Primary Education (6-7 Years)

(i) Social interaction (as in (a (i))
(ii) Personality development (a(ii))
(iii) Development of cognitive skills (a(iii)) also

(a) Guided pictorial reading followed by script reading
(b) Aural comprehension.

(iv) Psycho-vocal-motor skills (aiv)

(a) Initiation into writing through copying
(b) Self-expression through graphic representation of events, ideas, imagination, etc.

(c) The third and fourth years of Formal Education (8-10 Years)

Objectives

The Child requires at this level:

1. Reinforcement of socially desirable language behaviour acquired at an earlier stage through:

(a) More varied classroom activities like

(i) drama
(ii) discussions
(iii) quizzes
(iv) debates
(v) poetry and rhymes.

1. (b) Exposure to a wider range of direction and vicarious experience through e.g. reading (varied and difficult materials).

2. Acquisition of new skills relevant to child's level of development e.g.

   (a) self-expressive writing.
   (b) inculcating desirable reading habits (e.g. reading for study, pleasure, speed, information.)
   (c) Using language for studying (i.e. skills of observing recording, and reporting.)

Suggested Content, Materials and Methods

1. Formal Pre-School (3 - 5 Years)

CONTENT	MATERIALS	METHODS
1. The language of phatic communion, i.e. exchange of greetings and courtesies 1A. Following verbal instructions	(a) the learners and the teachers (b) pictures, charts, photographs (where possible).	- Demonstration and dramatization
2. Talking about oneself		
3. Talking about other people, places and objects.	(a) The learners and the teachers (b) Realia (c) Pictures and objects (where possible)	- Demonstration and dramatization - Examining objects - Manipulating objects - Visits and looking around
4. Attention to Linguistic facts, details, etc.	(a) stories (simple/straight forward) (b) poetry (spoken) (c) enumerations (d) picture, charts, objects, etc.	- Children telling stories - Children completing stories - Children drawing morals from children stories - Children building stories around pictures. - Teachers and other adults telling children stories - Children counting and/or classifying objects.
5. Talking about one's inner-self (Expressing joy, sorrow, etc.)	(a) stories, and picture, (b) real situations	- Dramatization of events and situations - Stimulating learner's individual reaction.
6. Playing games and entertaining through the use of language.	(a) Rhymes (b) Riddles (c) Songs (d) Charts, Pictures (e) Dance (f) Games and Competitions (g) Quiz	- Dramatization - Imitation - Other forms of physical activity - Recitation

Suggested Content, Materials and Methods

1. Formal Pre-School (3 - 5 Years)

CONTENT	MATERIALS	METHODS
7. Pre-Writing	(a) Chalkboard (b) Scrap books (c) Pencils, Crayons (d) Exercise books	- Imitating shapes of letters and objects

The first two years of formal Primary Education (6 - 7 Years).

1. 2. 3. 4. As in the recommendations for 5. 6. 7.	formal Pre-schooling	
8. Initiation to reading and writing	(a) Flash cards (b) Picture books (c) Exercise books (d) Chalk board, Pencils (e) Simple short stories (1-3 sentence stories)	- Word games - Teacher and Pupils reading - Copying - Simple completion exercises - Pictorial representation of the events of a story

The third and fourth years of formal education (8 - 10 Years)

1. Observing, recording and (+ listening) reporting (in words and in writing).	(a) Objects, events, phenomena, people, shapes, figures, situations, places, pictures and charts (b) Stories (oral or written) (c) Audio-oral materials (where possible)	- Visits, observation, manipulation - Dictation/note taking - Guided writing (description and narration) - Discussions

The third and fourth year of formal education (8 - 10 Years)

CONTENT	MATERIALS	METHODS
2. Expressing one's own views/ following an argument (in words and in writing)	(a) Drama (b) Poetry (c) Complicated stories (d) Complicated pictures	- Debates - Discussions including arguments - Guided writing (summary and arguments)
3. Reading for information	(a) Children made stories (recorded in print) (b) Very short stories	- Silent reading - Oral and written answers on all aspects of the texts read.
4. Reading for pleasure	- Wide variety of appropriate fiction and non-fiction	- Introductory, dramatized, illustrated reading in class - Regular assignments of private reading - Classroom guided and graded discussions - Written assignments on aspects of the reading assignments.

CURRICULUM GUIDELINES FOR EARLY CHILDHOOD EDUCATION IN A EUROPEAN LANGUAGE (EL)

Mto Mugambi A.F. - Kenya
P.M. Kephe - Lesotho
Lorna Wandera - Kenya
Beatrice Jones - Cameroon
Mary N. Gakunga - Kenya

Deliberations of the EL Team

Clarification of Concepts

An EL situation is one where a European Language (EL) is the medium of instruction as of the first day of school. In our case English is the medium of instruction.

Main Characteristics of EL

An EL is:

(a) structurally different
(b) culturally distant, occupationally and environmentally different and therefore conceptually different.

EL situation offers the learner few opportunities of interacting with fluent speakers of the foreign language because his peers tend to revert to the local language outside the classroom.

Description of the Characteristics of the Learners in Mind

(a) They are six-year olds.
(b) They have mastered the main structures of their language (MT) but they are still fairly receptive and flexible.
(c) They are avid communicators.
(d) They are keen and curious to learn (inquisitive)
(e) They are at the highest point of growth rate (both physical and mental).
(f) They can absorb the new language faster than the teacher can deliver it.
(g) This is their first exposure to the formal learning situation.

Definition of the Situation

The following objectives cover the first four non-terminal years of primary school.

Listening Skills: Upon completion of primary four the

pupils should have sufficiently develop/acquired the following learning skills: ATTENTIVENESS, OPENNESS, CONCENTRATION, RETENTION and EVALUATION in order to be able to perform the following tasks:-

i. To understand English as used by teachers in formal teaching situations, story-telling as well as in social interaction at school.

ii. To understand and be able to use English in inter-action with peers.

iii. To listen with understanding to radio school broadcasts aimed at their level.

iv. To understand oral instructions so as to be able to carry them out.

Speaking Skills:

In speech the children should be in a position to express their needs, ask questions, have a good articulation and clear diction, control their volume of voice and speed of speech, and above all use such English as is acceptable to the good speakers of English in their own country. Armed with all of these useful speaking skills the children will confidently perform the following learning tasks by the end of year four.

i. address adults in a proper manner

ii. interact (in spoken English) with peers.

iii. talk about familiar things beyond school activities.

iv. deliver a message in English

v. give simple instructions and directions with precision

vi. tell simple stories.

vii. report school events and other events having some bearing on his environment.

viii. describe simple tasks performed at home as well as at school.

ix. express physical ailments to the class teacher.

Reading Skills:

The child should be able to:-

i. Read with understanding supplementary readers within the vocabulary range of about 1,500 words.

ii. Follow instructions in simple do-it-yourself manuals.

iii. Understand notices, pictorial representations, etc.

iv. Read and understand English as used in specific and functional situations such as mother's shopping list (which is often written in English).

Writing Skills:

By the end of primary four the child should be able to write a simple informal letter appropriate to the occasion in:-

i. neat, legible and handwriting

ii. correct spelling

iii. simple but correct syntax

iv. coherent and sequenced ideas

Under guidance the child should be able to perform the following skills in exercises graded at the appropriate vocabulary and syntactic level.

i. connect sentences with correct linking words.

ii. place relative and adverbial clauses in sentences.

iii. make meaningful correlations.

iv. write paragraphs.

Course Content (Graded and Sequenced)

LANGUAGE ITEMS	METHODS	MATERIALS	ACTIVITIES
1. The five basic sentences S.V. - S.V.O. - S.V.DO. IO - S.V.C. - S.V.O. OC - Their transformation into imperative interrogative negative passive exclamation - The wh. questions using who, what, which, where, when, how - The possible conditional extensions using prepositional phrases, relative clauses.		props and pictures real objects	- Pronunciation exercises - Language games - Pattern practice drills - Substitution tables - Substitution dialogues
2. Verb Tenses Present simple Present continuous Future simple Future (going to) Past continuous Past simple Present perfect	taught through a flexible oral direct method using substitutions and transformations in active situations.		
3. Vocabulary 2,000 word level including the following parts of speech, nouns, verbs (and particles) adjectives (colour, size, shape, quality, quantity) prepositions, pronouns - subject, object, possessive			

ORAL/AURAL	METHODS	MATERIALS	ACTIVITIES
	Repetition and practice using clearly defined techniques for each type of activity	Props and pictures real objects	Listening exercises speech exercises and drills dialogues stories rhymes miming and choral speaking role playing with action words puppetry marionnettes
Reading Pre-Reading		Charts or pictures	Pre-reading activities of a purely visual nature (due to limitations of E.L. medium)
	Look and say Look and do whole word/ sentence analytic based on global items already known by heart	charts real objects pictures flash cards/ boards reading cards blackboard pupil's book large sheets of paper	- labels on objects - matching pictures and words -obeying instructions - spotting a described situation - re-ordering sentences - substituting words in sentence patterns - reading passages orally mastered - answering questions on passages read.

WRITING	METHOD	MATERIALS	ACTIVITIES
	Pre-writing patterns Handwriting using one of the following schemes Palmer method Marion Richardson method Nelson method Copy dictation (first words then sentences) graded and sequenced development of written composition skills	Flashboards	- Pre-writing activities to develop manipulative skills - gap/blank filling - completing sentences - linking sentences - sequencing dis-ordered sentences. - multiple choice passages. - writing paragraph from i. substitution tables ii. questions iii. guidelines iv. model paragraphs v. memory

Decisions on sample materials to be produced

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A Unit: (Topic based according to the child's needs) showing how new language materials (vocabulary syntax) are to be graded and sequenced in an E.L. development of the language/skills.

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Rationale

- Thereby we can show how the development of the various skills can be integrated.
- Give a model of some of the activities listed as being necessary for a unit.

EARLY CHILDHOOD EDUCATION
SCIENCE - MATHS - SOCIAL STUDIES

GROUP II REPORT

List of Participants

SCIENCE

Mrs. B. Marquardt	-	West Germany (Consultant)
Miss G. Kimani	-	Kenya
Mr. D.K. Kotut	-	Kenya
Mr. J. Michello	-	Zambia
Mr. D.S. Nagawa	-	Mauritius
Mr. I. Rampou	-	Botswana
Mr. J. Osupelem	-	Uganda

MATHS

Mr. M. Moima	-	Lesotho
Mr. W. Kwalazi	-	Tanzania
Mr. T. Balemesa	-	Uganda
Mr. S. Mkhouta	-	Swaziland
Mrs. F. Mwakireti	-	Kenya
Mr. E.O. Jekami	-	Nigeria
Mr. P. Kuria	-	Kenya
Mr. M.J. Dlamini	-	Swaziland

SOCIAL STUDIES

Mrs. Y. Obua-Otoa	-	Kenya (Consultant)
Mrs. M. Onibokun	-	Nigeria (Consultant)
Mrs. M. Kabiru	-	Kenya (Consultant)
Mrs. P. Metuge	-	Gambia
Mrs. B. Omari	-	Tanzania
Mrs. E. Johnson	-	Sierra Leone
Mr. T. Digga	-	Ethiopia
Mrs. M.T. Oshungbohun	-	Nigeria
Miss M. Ngechu	-	Kenya
Mr. G. Owino	-	Kenya
Mr. J.O. Menya	-	Kenya

CONSULTANTS:

Mrs. Y. Obua-Otoa
Mrs. B. Marquardt
Mrs. M. Onibokun
Mrs. M. Kabiru

Group Reporter

Mr. D.S. Nagawa.

Aims

It was decided at our first meeting:

(a) To separate into 3 different groups (Science, Mathematics and Social Studies).

(b) To work within each group on a subject oriented-curriculum with a view to integrate topic wise.

(c) To have periodic consultations after every few working sessions so as to coordinate the work.

(d) That each group will decide what particular line to follow and to produce samples of curriculum materials.

(e) To have one main activity in common,

Namely:- preparation of a lesson plan running a trial in a local school evaluating the results.

Procedures for the common activity:

Following a decision to work using an integrated approach:

(a) We analysed the objectives put forward by the three subject groups.

(b) We looked for similarities and areas of relationship among the various objectives

(c) We came up with one objective common to all three subjects

(d) Each subject group went on its own looking to suitable topics for a common lesson.

(e) We agreed to develop the lesson around the theme:

Home Topic Food

Sub-topic: Naming foodstuffs

N.B. Two 5-minute lectures were delivered on the Subject: The integrated approach by
1. Mrs. B. Marquardt and
2. Mrs. M. Onibokun

Both short papers have been circulated to all participants

Production of sample materials:

(a) Aims and Objectives of each of the three subject Groups (see separate reports).

(b) Lesson Plans - Appendix I - IV

(c) Evaluation procedures prepared by the science group - Appendix V

General Comments

(a) The rationale for coming together as one group was not clear. The groups should have been informed well in advance that the main task was to produce an integrated curriculum.

(b) Viewed in terms of the objectives to be achieved the time available was too short.

(c) After running trial lessons the group is of opinion that the integrated approach is ideal for pre-school and lower primary education.

Science Report

Aims and procedures

(a) Decision on general aims for pre- and primary science education

(b) Selecting a suitable topic "water" was selected

(c) Changing the topic in order to cooperate with the other sub-groups. Topic "feed" and sub-topic "having food-stuff" was selected from the general theme "The home".

(d) Preparing suggestions for a lesson plan "having food-stuffs"

(e) Developing a guideline for primary science education

Products

Guidelines for primary science education

The following guidelines consist of different aspects which are relevant for primary science education: aims and ideas, teaching - learning philosophy, problems of daily school life, selected topics and activities and procedures for instructional planning. These guidelines are mainly oriented at the practising teacher. Therefore they could be part of a syllabus or a teacher's guide.

Aims and ideas for pre and primary science

Children should

- develop an awareness of senses
- develop an inquiring mind
- develop an awareness of sanitary condition and health
- develop manipulative skills
- develop observation skills
- be encouraged to participate in problem solving of the community and family
- be encouraged to develop self-reliance
- enjoy learning science
- accept other ways of looking at science and nature (e.g. cultural aspects, children's way of looking at nature)
- understand themselves
- know about the importance and relevance of science and technology in their society
- develop an awareness of concern for the environment

The five important aims are:

- children should enjoy learning science
- develop an awareness of senses
- develop an inquiring mind
- encouraged to develop self reliance
- develop an awareness of concern for environment.

Ideas about integration

The above mentioned aims show already that science education should not be treated isolated from social, political and cultural aspects. This means that within these aims there are already aspects which can lead to an integrated approach within pre and primary science education.

As regards to an integrated approach related to e.g. areas of interest and not to a subject science, there are different possibilities to integrate

e.g. - by means of a topic
- by means of problems and situations which are relevant to children and society
- by means of the environment

In this guideline only one approach has been developed, the topic oriented approach. This approach does not constitute a priority thus other approaches should be also considered.

Teaching learning philosophy

- child centered approach
- teacher shall guide and help in the learning process
- children should be given freedom in organising learning processes.

School situation

This point cannot be elaborated because the school situation differs from place to place. Only aspects which should be considered can be given.

- class size
- equipment
- facilities
- social conditions of the children, etc.

Suggested topics and activities

The function of this part is to show which topics can fit the general aims. But the following part contains only one theme "The home", and the related activities.

The theme "The home" was selected as an example for integrated instruction. It covers many of the main general aims for pre- and primary science. The following ideas show which parts of science education comes in under the theme "The home" for pre-school to the first four years of primary education.

Topic and Content

FOOD	SUGGESTED OBJECTIVES	SUGGESTED ACTIVITIES
Naming food substances. Why food is necessary. How we obtain food at home and in school. Preparing, serving and eating food. Cleaning up after meals. Health rules about food. Edible and non edible things. Staple foods.	Pupils should be able to: 1. Name the various types of food substances. 2. Sort the food substances as appropriate to them (e.g. size, colour, how they are prepared, etc.) 3. Identify which foods can be eaten raw. 4. Recall the health rules for preparing, serving and when eating food (i.e. use clean water, pots, plates and washing hands before meals).	1. Collecting of food items. 2. Sorting food items into groups. 3. Tasting raw edible foods. 4. Disposal of waste foods.
SANITATION Washing our bodies. Washing our clothes Washing cooking equipment Washing food items Sweeping in and around the home.	Pupils should be able to: 1. Clean their hands, noses, faces and feet. 2. Sweep and clean in and outside their home. 3. Use the toilets properly.	1. Washing hands before and after handling something. 2. Sweeping and cleaning in and outside classrooms. 3. Combing hair and cutting finger nails.
PLANTS Naming plants grown around the home. Use of plants grown around the home. How to look after plants around the home.	Pupils should be able to: 1. Name the plants around their homes. 2. Water plants at the right time (e.g. in the morning or evening when its cool). 3. Grow and look after some plants grown at school.	1. Growing various plants around the school. 2. Put shades around young plants. 3. Water flowers. 4. Collect plants.

Topic and Content

ANIMALS Naming animals in the home. Use of the animals in the home. Pets in the home.	Pupils should be able to: 1. Name the animals kept at home. 2. Name the use of animals in the home 3. Name the types of food given to animals kept in the home. 4. Name common pests in the home. 5. Name ways of controlling the common pests in the home.	1. Feeding animals 2. Handling animals. 3. Care of animals. 4. Visiting breeding places for some pests.
HOME APPLIANCIES Tools of different types Uses of the different tools How to look after the tools in the home. Safety of home tools.	Pupils should be able to: 1. Use the tools correctly in the home. 2. Recall the dangerous home equipment.	1. Proper handling of tools. 2. Storing tools after use. 3. Use some tools to make toys.

Procedures for Instructional Planning*

Lesson plans are the practical application of the textbook, teacher's guide, media, equipment, etc., to the specific environment of pupils and the teacher. It should contain at least: Specific aims to the topic, sequence of subtopics, the role of the teacher (method), materials and equipment to be used, the expected role of the pupils, expected outcomes, and means of evaluation.

It is suggested to consider the following specifications in order to supply feedback for curriculum development at other levels.

Criteria for a lesson plan:

(a) Does it consider the general aims of teaching primary science?
(b) Are the special aims of the lesson in accordance with the general aims?
(c) Are the expected outcomes of the lesson related to the specific aims?
(d) Are the different methods of teaching in agreement with the topic?
(e) Are the selected methods of teaching in agreement with the aims?
(f) Are the materials satisfactory?
(g) Are the media satisfactory?
(h) Do the evaluation measure correspond to the aims and methods of teaching?
(i) Does the plan of the lesson consider the pupils previous experiences, knowledge and possibilities?
(j) Does the plan consider the school and environmental conditions?
(k) Is the content adequate and satisfactory?
(l) Are the listed criteria in balance with one another and are they without contradiction?

Steps in preparing a lesson plan:

(a) Formulate questions to be dealt with in the lesson on the basis of previous lessons, and relate them to the topic, to the needs and desires of children, and to the social conditions.

(b) Prepare possible sequences of questions and answers for the lesson. These sequences must correspond to the guiding principles (aims), prerequisites of teaching and learning (source of knowledge, the teacher, the pupil and the organizational prerequisites).

(c) Select one sequence for the specific situation to satisfy the teacher, pupils and the class conditions.

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*The following part is a slightly modified part out of a recommendation for curriculum development for primary science education which have been prepared by the participants of a workshop concerning primary science education in Egypt, 1978.

(d) Prepare the lesson plan to include the following elements: Objectives, topics, method, media, material, evaluation, and lesson procedure.

(e) Use the "criteria for a lesson plan" as a check-list to identify the aspects which are realized in the plan, and insure that all specifications of the plan were considered.

(f) Return back to (c) and (d) if your answer was no, i.e. the necessary elements were not completed, then return to (e); if your answer was yes, go on to (g)

(g) Collect all teaching aids and materials necessary and try to determine the function of each.

(h) Modify the lesson according to the materials and media collected in (g).

(i) Prepare, if possible, means of evaluation.

(j) Teach in accordance with the environmental knowledge, abilities, and ideas of the children; keep the possibilities of alternative procedures (b) in mind.

(k) Evaluate

(l) Keep the lesson and evaluation in mind while preparing the next lessons.

Mathematics Report

The Task: Curriculum Design and Production of related Sample Materials

Aims:

To develop

(a) Scientific behaviour
(b) Computation skills and
(c) Manipulative skills in Early Childhood Education

Strategy: A Curriculum Design

(a) General Objectives The child should be able to:

(i) acquire an understanding of number and numeration up to 9,999;
(ii) perform the four basic operations;
(iii) develop skills in measurement, approximation and estimation;
(iv) develop spatial concepts and ability to use them;
(v) acquire techniques of collecting, representing and interpreting data;
(vi) develop desirable attitudes, make good use of his leisure time and utilise his senses appropriately;
(vii) develop techniques of investigation and problem solving;
(viii) appreciate the use of mathematics in daily life.

(b) Content/Activities:

(i) Pre-School:

classifying, sorting, grouping, matching, ordering, counting, recognition, naming and writing numbers from 1 to 9.

Comparisons of capacity, weight, length, or height, and size in measurement. Time events of the day, days f the week.

(ii) Primary School:

Standard One:

Classifying, sorting, grouping, matching, ordering, counting, recognition, naming and writing numbers from 0 to 99.

Fractions - ½ and ¼ - recognition and naming only. Addition and subtraction with sum not more than 18. Comparisons of capacity, weight, length or height and size including use of different arbitrary units. Recognition of coins and different times of the day and days of the week.

Collection and recognition of objects with similar shapes.

Collection, representation and interpretation of data using bottle- ops, match-boxes, etc.

(b) (ii) Primary School:

Standard Two:

Counting, writing, ordering and reading of numbers up to 200 counting in two's, 5's and 10's Even and Odd numbers.

Fractions - $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$, $\frac{1}{5}$, $\frac{1}{3}$ using objects - recognition, naming and comparisons of.

Addition and subtraction of two digit numbers with and without carrying. Estimating with arbitrary standard units for weight, capacity, length or height and size.

Recognition and relationship between the values of the coins. Recognition of the notes. Reading the clock to the hour and half-hour.

Classification and naming of 3-D shapes - cuboids, cubes, spheres and cylinders. Collection, representation and interpretation of data using concrete objects.

Standard Three:

Writing, ordering, reading numbers up to 1000. Countring in 2's, 3's, 4's, ... to 10.

Fractions: halves, quarters, thirds, eighths, sixths, recognition and comparisons of:

Addition and subtraction of three-digit numbers with and without carrying.

Addition and substraction of fractions with the same denominator.

Multiplication facts up to 9 x 9.

Division by one digit divisor without remainder.

The standard units of measurement viz the-metre 'm' (including $\frac{1}{2}$m, $\frac{1}{4}$m); the kilogram 'kg' including $\frac{1}{2}$ kg., $\frac{1}{4}$ kg., the litre "1" (including $\frac{1}{2}$ 1., $\frac{1}{4}$ 1).

Perimeter of rectangles. Values and relationship between the coins and the notes. Buying and selling with money up to KShs.10. Reading the clock to the minute.

Recognising and counting of faces, edges and corners of cuboid, cube, cylinder.

Identify flat faces of these 3-D shapes.

Collection, representation and interpretation of data using block diagrams.

Standard IV

Counting, reading, writing and ordering numbers up to 9,999.
Counting in tens, twenties, fifties and hundreds.
Fractions, finding equivalent fractions.
Addition and subtraction of numbers up to four digits with and without carrying.
Addition and subtraction of fractions with and without same denominator.

Multiplication of types (i) $\begin{array}{r} 45 \\ \times 7 \\ \hline \end{array}$ (ii) $\begin{array}{r} 53 \\ \times 42 \\ \hline \end{array}$ (iii) $\begin{array}{r} 237 \\ \times 8 \\ \hline \end{array}$

Division by divisors less than 10 without remainders.

The standard units of measurement viz. (i) m, cm (ii) kg. g. and (iii) litre, $\frac{1}{2}$ l, $\frac{1}{4}$ l.

Perimeter of squares, rectangles and simple combinations of both.

Comparisons of sizes (area) of flat surfaces.

Sorting flat faces of cubes, cuboids and cylinders into squares, rectangles and circles. Identification of corners and square corners.

Finding area by using different arbitrary units e.g. 1 x 1 cm^2 squares, rectangles.

Money: Buying and selling activities with amount not exceeding twenty shillings.

Time: Relationship between (i) day and hour and (ii) hour and minute. Addition and subtraction of time in hours and minutes.

B. Theme: The Home

Components of Home The family, utensils, furniture, domestic animals, foodstuff, building, fuel, clothes, sanitation compound.

	Components	Objectives achievable
1.	Family	i, ii, iii - sorting, matching and counting

	Components	Objectives achievable
2.	Utensils	i, ii, iii, iv - sorting, matching spatical concepts
3.	Furniture	i, ii, iii, iv, vii, vi - spatial concepts measurement
4.	Domestic animals	i, ii, iii, iv, viii, vi
5.	Foodstuff	i, ii, iii
6.	Building	iii, iv, - shapes, size, number
7.	Fuel	i, ii, iii, vi, vii - cost classification
8.	Clothes	i, ii, iii, iv, vii, vi - sorting etc.
9.	Sanitation	iii - clothe-line lengths, heights, etc.
10.	Compound	iii and iv - measurements - area

N.B. Objectives vi - viii are achieved indirectly whereas i - v are achieved directly.

Related Sample Material

Topic: Food

The sub-topic: Naming Food Stuff was chosen by the whole group

The topic was taught using the integrated approach. Following are the objectives of mathematics teaching that can be achieved under the sub-topic for the two classes selected.

Pre-School: Pupils should be able to:

(i) Name various items used in making a particular dish, e.g. irio (beans, potatoes, maize, etc.)

(ii) Sort out the various food items in (i) from a collection

(iii) Count the number of food items for making e.g. irio

Primary Standard I: Pupils should be able to:-

(i) Form and name members of sets of food, e.g.

$\{\text{fruits}\} = \{\text{oranges, bananas, etc.}\}$

$\{\text{vegetables}\} = \{\text{cabbages, etc.}\}$

(ii) Count the members in each set - formed.

Below are the final objectives agreed upon by the whole group for the two classes mentioned:

Pre-School: Pupils should be able to:

(i) Identify the various food items on display.

(ii) Name the various foods identified.

(iii) Sort out the various food items named as appropriate to children.

(iv) Count the number of foods sorted.

Primary Standard I Pupils should be able to:

(i) Form and name members of sets of foods e.g. set of fruits, vegetables, colour, size, etc.

(ii) Count the members in each set.

Social Studies' Group: Summary Report

(a) The group defined Social Studies as the study of man and his environment as well as his social interactions[1]. It was recommended that it should be introduced to the child as early in life as possible.

(b) The aims and objectives of the syllabus were formulated[1].

(c) The group interviewed community leaders. The objective was that the syllabus should be modified accordingly to community aspirations. This was an example of how curriculum objectives should in actual practice be formulated.

(d) It was decided that social studies 'Early Childhood Education' i.e. Pre-Primary up to Primary Four should centre around the Child's immediate environment "The home, the school and the community.

It was observed that the word 'Community' is subject to different interpretations, hence the decision to use the term 'Neighbourhood'. The units of the syllabus are as follows:

Pre-School	:	The home and the school
Primary one	:	The Home and School
Primary two	:	The Neighbourhood
Primary three	:	The District
Primary Four	:	The Nation

(e) From the ten general objectives, specific objectives, content and suggested activities were outlined.

(f) A general theme: The 'Home' and topic 'Food' in the Home was agreed upon for the integrated lesson with science and Mathematics. Work for social studies spelled out the specific objectives, sub-topics, content and suggested activities[1].

(g) The group also worked on, sample lesson plans on 'Naming Foodstuffs' for Pre-School and Primary one. There were later integrated with those of Mathematics and Science.

Reference:

(a) Third ACO Workshop on Early Childhood Education Nairobi July 16th - August 3rd 1979:

Social Studies Group.

Social Studies Report

Social Studies can be difined broadly as the study of man, the way he behaves and organizes in groups, the relationship of his physical and natural environment and his control over these environments. This means that the objective of Social Studies is to systematically train the child, in his formative years, to look at life as an integrated whole. In other words it aims at imparting certain ideals and moral values in the minds of the young which will help in promoting healthy social, emotional and mental development.

Social Studies is an essential part of education. It encourages the child to develop an awareness of social, economic, cultural and physical aspects of the world around him. Without moral values that the subject aims at imparting, the child will have no guide for his standard by which to judge the world about him.

Aims:

(a) To help the child understand and appreciate the environment in which he lives.

(b) To help the child understand, respect and appreciate the ways of life of others.

General Objectives

The child should:

(a) Understand and appreciate his culture

(b) Understand and appreciate his social and physical environment

(c) Develop positive attitudes towards communal and national Unity.

(d) Develop problem solving and decision making skills

(e) Develop aesthetic appreciation

(f) Develop his moral and spiritual values

(g) Acquire positive health skills and habits

(h) Develop his attitude towards self reliance

(i) Develop positive attitudes towards self and others

(j) Develop positive attitudes towards work.

General Objectives	Specific Objectives	Content	Activities	Material	Evaluation
1. Understand and appreciate his culture	The child should: 1. understand his culture 2. learn as many local songs as possible 3. learn popular folk tales in his area 4. know the meaning of some proverbs 5. use polite form of greetings 6. behave courteously	- the home and family - clan and kinship - ceremonies - traditions - dress - taboos - food - water - shelter - medicine - folk lore - greetings - transport	- hold discussions - singing - dancing - games - attend ceremonies - visit museums - modelling - drawing - painting - dramatization - visit local chief - reading of books - role playing - talks from resource people		
2. Understand and appreciate his social and physical environment	The child should: 1. know the sources and uses of water 2. locate his area on a map 3. knowing his surroundings	- sources and uses of water - type of soil - weather - farming methods - planting seasons - nature worship - effect of physical environment on man - heavenly bodies - conservation - population - natural disasters	- map drawing - location game - modelling - drawing - excursions - singing - practical - farming - collection of exhibits - talks by resource persons - collecting types of soil - arrange a social evening - plan a community action.		

General Objectives	Specific Objectives	Contents	Activities	Materials	Evaluation
3. Develop positive attitudes towards communal and national unity	The child should: 1. understand the concept of the community 2. know the meaning of nation 3. understand the value of unity 4. understand his place and what contribution he can give 5. recognise the coat of arms and flag 6. learning and understanding the meaning of National Anthem. 7. identify the head of state 8. cooperate with others for the common good 9. exhibit tolerance 10. show respect 11. express concern for the welfare of others 12. exhibit positive community attitudes such as loyalty and patriotism.	- the school as a community - concept of community - concept of nation - concept of unity - concept of co-operation - coat of arms - national flag - national anthem - national day - The State - The Head of State	- observing the flag - drawing of the flag - discussion on the flag - singing of the National Anthem - reciting the loyality pledge - identification of the National Leader - visits - role playing - helping members of the community e.g. the elderly, sick people etc. - helping in activities to keep the environment clean		

General Objectives	Specific Objectives	Contents	Activities	Material	Evaluation
4. Develop problem solving and decision making skills	The child should: 1. recognise a problem 2. plan for action 3. explore his environment 4. ask questions 5. listen to both sides of an argument and make decision 6. share discoveries with others 7. demonstrate skills of problem solving in his daily life 8. identify social problems such as poverty, ignorance, disease 9. identify sources of quarrel among the group		- making simple jig saw puzzles - solving riddles - role playing - practical problem solving - debating - sorting - classification - decision making - games - role playing e.g. playing the role of peace makers		
5. Develop aesthetic appreciation	The child should : 1. appreciate man's work of art 2. appreciate music and dance, drama, sculpture, art, dress, architecture literature 3. appreciate natural beauty through observation of landscape/hills valleys, water falls etc. heavenly bodies fauna and flora.	- literature (stories, reading and value of books - artistic works riches stored in them - different forms of music - (traditional, classic, pop Jazz)	children listen - to stories and - tell stories - discuss stories - attend concerts - listen to all kinds of music - learn and oppose some songs - drawing of patterns - design things such as vessel drums, houses,		

General Objectives	Special Objectives	Contents	Activities	Material	Evaluation
5. Cont.....	4. appreciate colours 5. appreciate beauty in people 6. appreciation of books and reading 7. observe and report 8. express appreciation through behaviour e.g. talking, enjoying	- oratory-power and influence of speech - sculpture - the skill of human hand - architecture (different forms of building construction and their peculiarities) - drama - (art and drama) - comedies - folk lore - (varieties of national and ethnic folk lore)	- visit to local craftsmen, musician, dancer - write poems - talk or concert by resource persons - demonstration by artists - watch birds, flowers, stars, sky, buildings - reading - designing - reporting - making comparisons - painting - writing		
6. Develop his moral and spiritual values	The child should: 1. exhibit some form of discipline 2. show honesty 3. behave responsibly 4. show respect 5. be fair and just in his actions 6. refrain from stealing, lying and cheating, spying 7. use of acceptable language	- discipline and school rules - moral of deity (duties) - different types of religion and forms of worship - discussion on forgiveness - religious songs and prayers - folk lores	- story telling - drama - role playing (e.g. a concert trial) - reading different literatures - film viewing - visit to courts - listening to rhymes, songs and morning recitation of prayers - excusions - interprete and display picture - drawing		

General Objectives	Specific Objectives	Contents	Activities	Material	Evaluation
6. Cont.....	8. recognise the existence of different types of religion and forms of worship 9. respect for other religions	- Rehabilitation centres	- modelling - interviewing of resource people - discussion:		
7. Acquire positive health skills and habits	The child should: 1. know basic health skills and habits 2. use the toilets properly	- health habits - use of toilets - clothes - physical education - mental - health - immunisation	- washing of hands before and after eating - washing of hands after the toilet - demonstration on cleaning of teeth and brushing of hair - washing the body - cleaning of classroom and school compound - dramatization - demonstration - drawing - story telling - role playing - health games - resting - health walks - recreation - modelling - reporting - writing - making of health maps of the area - dialogue - composition - demonstration in first aid corner		

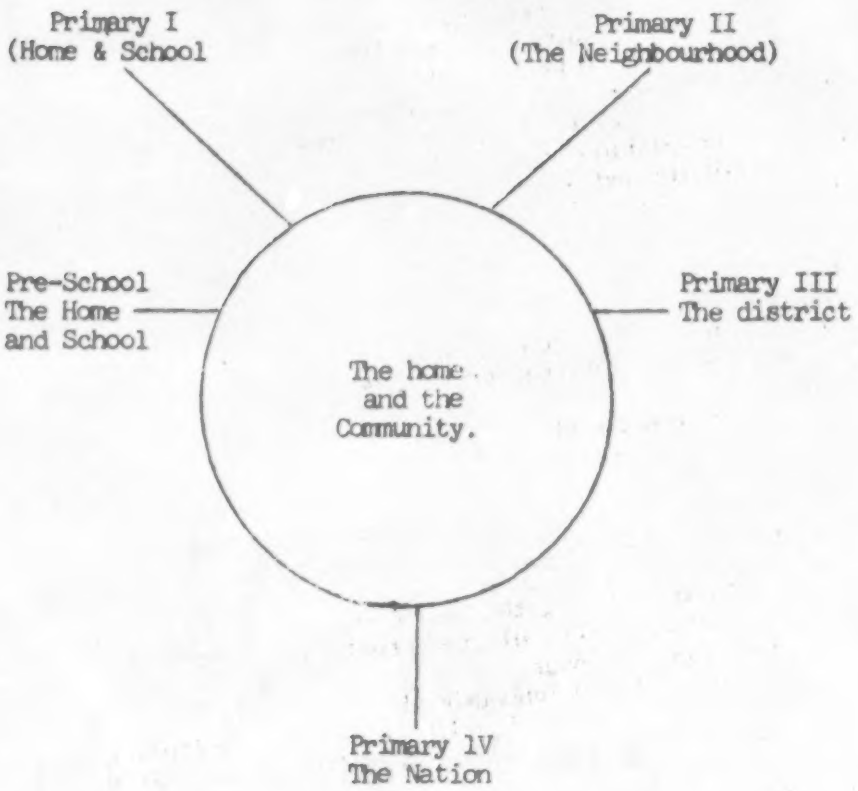
General Objectives	Specific Objectives	Contents	Activities	Material	Evaluation
8. Develop his attitude towards self-reliance	The child should: 1. participate in doing things for themselves 2. make and maintain materials and property (e.g. toys school equipment, decorative toys.) 3. express pride in work done for himself and the community 4. show some initiative and creativity 5. show satisfaction in work done 6. maintain property both for self and others 7. be creative 8. use his initiative 9. be thrifty (e.g. not wasting food) etc., 10. be able to innovate and accept change	- concept of self reliance - concept of value	- making toys - mending things - drawing - cleaning of the school compound - children selling and learning the use of money - helping in cleaning activities of the area - role playing - planning - self-help projects in the school.		

General Objectives	Specific Objectives	Contents	Activities	Material	Evaluation
9. Develop positive attitude towards self and others	The child should: 1. understand himself 2. exhibit self control 3. exhibit self confidence 4. listen to others opinion 5. respect others 6. accept defeat or failure 7. exhibit selflessness.	- concept of selfness - concept of respect for others - concept of interdependence - concept of self-reliance	- writing of names - describing parts of the body - speaking in class - asking questions - choosing group leaders - role playing - sharing and taking - helping others - listening exercises		
10. Develop positive attitude towards work	The child should: 1. demonstrate love for manual work 2. demonstrate a sense of devotion to work 3. develop skills to perform efficiently 4. demonstrate the ability and interest to work for the common good of the community 5. demonstrate a sense of self-reliance.	- the concept of hard work - reinforcement of positive attitude towards classroom activities - contribution of Artisan to National Building	- looking after a school farm - observation of workers working - working in groups in school garden - modelling farms and industries - assigning of responsibilities to class members - individual work projects. - role playing - teach songs and poems about work compose songs.		

SOCIAL STUDIES FLOW CHART

Pre-Primary Class to Primary Four

Theme: The home and the Community



Content Outline

Pre-School and Primary One

The Home

Units:

Unit One: Self
Unit Two: The Family - its composition
Unit Three: Family members and their roles
Unit Four: Family possessions
Unit Five: Needs of the Home (food, water, shelter, health, clothing, emotional security)
Unit Six: Beliefs, values and customs in the Home
Unit Seven: Occupation of children in the Home
Unit Eight: Exceptional children in the Home
Unit Nine: Conservation in the Home
Unit Ten: Animals and plants in the home
Unit Eleven: Cleanliness in the home
Unit Twelve: My School

Notes on:

(National Anthem, flag, coat of arms, national day, national leader, - for teachers' handbook)

Primary Two: The Neighbourhood

Units:

Unit One: My school
Unit Two: Organisation
Unit Three: Administration of the Neighbourhood
Unit Four: Occupations (Agriculture, Crafts,)
Unit Five: Division of Labour
Unit Six: People in the Neighbourhood
Unit Seven: Needs and Services (Health Education, sanitation etc.)
Unit Eight: Uses of Various Places (e.g. buildings and sites)
Unit Nine: Resources
Unit Ten: Recreation
Unit Eleven: Social Organisation
Unit Twelve: Communication
Unit Thirteen: Cultural Activities (ceremonies etc.)
Unit Fourteen: Natural Environment (weather, etc.)
Unit Fifteen: The Child and Community Members
Unit Sixteen: Conservation Problems Within the Community
Unit Seventeen: Food and Feeding Habits (food taboos etc.)
Unit Eighteen: Medicine and Health Habits
Unit Nineteen: Trade
Unit Twenty: Religious Beliefs
Unit Twenty-One: Social Habits

Primary Three: The District

Units

Unit One:	Location of the District
Unit Two:	Make up of the District
Unit Three:	Population
Unit Four:	People in the District
Unit Five:	Ethnic Groups in the District
Unit Six:	Administration of the District
Unit Seven:	The Physical Environment
Unit Eight:	Historical Development
Unit Nine:	Economic Activities
Unit Ten:	Communication
Unit Eleven:	Administrative Problems
Unit Twelve:	Social Problems
Unit Thirteen:	Resources
Unit Fourteen:	Problems of District Development
Unit Fifteen:	Migration

Notes on:

(National Anthem, flag, coat of arms, national day, etc., for teacher's hand book).

Primary Four: The Country

Units:

Unit One:	Location and Boundaries
Unit Two:	Population
Unit Three:	The People (ethnic groups)
Unit Four:	The Climate
Unit Five:	Administration
Unit Six:	Social Organisation
Unit Seven:	Political System
Unit Eight:	Resources
Unit Nine:	Economic Activities
Unit Ten:	Infrastructures (communication, education, social amenities)
Unit Eleven:	Significance of National Anthem, Flag, Coat of Arms, National Day, of the Head of State.
Unit Twelve:	International Relationships

Unit: Food

Level: Pre-School Child - 5 Years Old

General Objectives:

To help the child learn and appreciate the value of food to him and others

To widen the child's knowledge about food within his environment

To develop child's appreciation of food traditions and customs in his culture

Selected Topics:

1. Naming our foodstuffs
2. Our need for food
3. How we obtain food in our home
4. How we obtain food in our school
5. Preparing our food
6. Serving food
7. Eating the food
8. Tidying up after a meal
9. Health rules about food
10. General care for food in my home
11. My favourite dish
12. Edible things and non-edible ones

Topic I	Objectives	Content	Skills to be Acquired and Developed	Attitudes	Activities	Teaching Aids	Evaluation
1. Names of Food Stuff	Children name and identify the foods they eat	What do we know about the food we eat. Naming the foodstuffs Stories about how the various food-stuffs get their names	observation classification naming drawing talking, story telling	appreciation of variety of food. appreciation of good names	children talk about the food they are familiar with at home. Children name the food they eat. Children identify certain foodstuffs among a collection brought by teacher and children. Children describe certain foods by colour, size, shape, taste, smell. Children draw the food tney like best	A collection of uncooked foodstuffs Labels bearing names of some foodstuffs Food charts Nature Table/ Corner Papers and Pencils.	Filling in blanks by naming orally.

Topic 2	Objectives	Content	Skills to be Acquired and Developed	Attitude	Activities	Teaching Aids	Evaluation
Our need for food	Children know why people and particularly children need food Children develop appreciation for food	-The reasons why people eat -The types of food given to young children and why -Why do we have something at break time -What happens to a child who does not eat well -How many times do we eat in a day and what type of food -How much food should one eat? -Why does mummy, daddy, grandmother, teacher etc. need food? -Food help us to grow. Food helps us to be energetic.	Planning problem solving, decision maki g classifying.	Appreciation of food value cooperation	Child talk about the food they eat at home and why. Children share experiences by talking about "the day I felt hungry". Children plan their break snack i.e. they choose the food to be eaten. Role play. Drawing different types of foods. Repeat after the teacher the three ways the food helps us to do work.	A chart showing a child who eats well looking healthy and playing well. A chart of food showing:- -Food that give us energy -Food that help us to grow -Food that fight the diseases that attack us A wall chart with the following on:- I eat food to grow, to be strong and to be healthy.	Children take part in planning their morning break-snacks. Teachers to see that there is something for the children to eat during morning break. Parents participate in making a snack for children.

Topic 2	Objectives	Content	Skills to be Acquired and Developed	Attitude	Activities	Teaching Aids	Evaluation
		Food helps to keep us healthy					
Topic 3 How we obtain food in our home	Children learn that effort is needed in getting food for the family. Children learn ways of obtaining food in their homes and at school.	- family's effort to obtain food for members especially the children. - who is responsible in getting food for the family. - Sharing the responsibility of getting food in the family. - Children's participation in getting food for the family.	Planting seeds mapping making block graphs, identify pictures.	Cooperation working	1. Role playing e.g. a. Mothers looking for food for the family. b. Buying food in the market or any of the children's choice. 2. Children talk about how my mother or father gets food for the family.	1. Actual food - to show the food we grow and the food we buy. 2. Photographs of pictures showing the market near the school, lorries and pick-ups bringing food to the market for sale, the people carrying food, people in the gardens looking for food etc.	

Topic 3	Objectives	Content	Skills to be Acquired and Developed	Attitudes	Activities	Teaching Aids	Evaluation
		- What are the different ways of obtaining the food for the family? - People who bring food presents to our homes - Why do we have to buy food sometimes? - Does your mother give away food to other families? Why? - Where are the food shambas? How far are they from the homestead? - Why do some people steal food from other people's gardens? Is it good?			3. Children visit the gardens near the school and observe how people get food for the family. 4. Children visit the market or a shop to see the food that are bought and note the prices 5. Children plant maize and beans 6. Children make a mural of the food we grow in our gardens and those we buy from grocery and market. 7. Children share experiences about food gifts in their homes.	3. A pictorial map showing a certain farmer's home and the route for bringing food to town. 4. A graph showing who gets food and how we get food.	

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Topic 4	Objectives	Content	Skills to be Acquired and Developed	Activities	Attitudes	Teaching Aids	Evaluation
How we obtain food in our schools	Children know how they get food at school Children identify ways of getting food at school Children identify people who are responsible for bringing food to the school.	- who brings food to our school - How does food get to our school - Parents' participation in taking food to the school. - Children's participation in bringing food to the school - Caring for food children bring to school		Children are given responsibility to look after the food in the school Children write a letter to thank those who bring them food at school. Children map a route of the food from a certain home to school Children talk about how food is brought to school.	Interdependence cooperation participation responsibility	The food that children bring to school. A food corner	
Topic 5 Preparing food	-Children know who is responsible for preparing at home and at school -Children learn being responsible in preparing food -Children develop appreciation for	-Why we prepare food e.g. working -Who cooks our food -What materials are needed in cooking and preparing food -What are the children's responsibilities in food preparation at home and at school -Custom in food preparation	-Cooking -Collecting fire wood, water -Preparing banana leaves (in case of Uganda)	Role playing e.g. mother collecting food from the garden and preparing a meal Drawing e.g. instruments used in preparing food Children demonstrate by preparing certain food and cooking it e.g. porridge	Cooperation work tidiness participation	Implements used in preparing food	

Topic 5	Objectives	Content	Skills to be Acquired and Developed	Activities	Attitudes	Teaching Aids	Evaluation
	cooperation in food preparation at home and school.						
Topic 6							
Serving food	- Children to learn serving food at home and at school. - Children learn customs of serving food at home	- Ways of serving food at home - Who serves food at home - Who serves food at school - Children's participation in serving food at home.	Serving food	Role play - Demonstration serving food - Do assigned responsibilities in serving food at home - Riddles about food serving	Cooperation - Responsibility -Participation -Food care	Food to be served and implements	Keep a record of responsibilities in serving food at home

Primary I

The: The home

Unit: Food

General Objectives

- to help the child learn the value of food to human beings (man).
- to widen the child's knowledge about food in his culture

Activities

- Discuss and participate in various cooking, serving of food
- Distinguish between various food items
- Discuss edible animals and plants
- Discuss taboos related to food.

Selected lesson topics for Standard I

1. Kinds of foodstuffs and their values to the body
2. Sources of food (e.g. who grows food?)
3. Food growing seasons
4. Preservation of food (e.g. storing)
5. Eating habits
6. Food poisoning
7. Different dishes cooked in our homes
8. Social customs related to food
9. The child's participation in food production
10. Problems of getting food.

Objectives, Contents and Activities of the selected lesson topics

Topic	Objectives	Contents	Activities
1. Foodstuff	Children know different kinds of food and their value	Kinds of foodstuffs and their values to the body e.g. meat, vegetable, fruits, milk, eggs, cereals, fish, etc.	Identifying various food items by classification
2. Sources of food	Children know where food items come from. Realize the problems involved in the provision of food. Identify places where food come from. Give reasons why people buy food from others.	Food grown in the local area (e.g. at home) Food brought from other places(and countries) means of transport who grows the food?	Discuss issue of location and transportation visit a nearby farm.
3. Food growing seasons	Children should understand that food grows at particular times of the year. The child should understand festivals connected with food the child be able to observe and record the weather and its relation to food growing	Seasons and their names. Crops grown in each season food festivals customs related to the planting seasons.	Discuss the characteristics of rainy and dry seasons Weather observation Identifying the planting seasons of various crops.

Topic	Objectives	Contents	Activities
4. Preservation of food	The child should know the traditional and modern ways of preserving food. Be able to preserve food	Who preserves the food? - How is it preserved?	Observing various food Storing facilities (e.g. granaries, drying, caning)
5. Eating habits	Demonstrate good eating habits Know diseases that could come from bad eating habits Know the socially accepted eating habits. Demonstrate good eating habits.	Washing hands before and after eating Good eating manners Cleaning mouth, teeth Balanced diet.	Role playing at an eating table Proper use of hands, fork. Demonstration of cleanliness before and after food.
6. Food poisoning	Children should be able to distinguish poisonous food. Children be able to know the smell, taste and condition of harmful food items. Children be able to avoid poisonous plants and animals	Characteristics of poisonous foodstuff poison Mushrooms, Spoiled canned food Poisonous herbs Allergy Preventative measures against poisoning.	Identifying poisonous foods Observing colour and general characteristics of bad food
7. Child's participation in food production	Children acquire knowledge of how food items are produced. Children identify the long process related to the production of foodstuffs Children realize the problems involved in food production	- Gardening -Sowing of seeds - Weeding plants - Watering plants - Protecting plants - Harvesting - Storing	Role playing Observation of seasonal changes and their effects

Topic	Objectives	Contents	Activities
8. Problems of getting food	Children know the problems related to obtaining food Children know the different places from where food is obtained. Children identify the long process related to the distribution of food.	- Food and population - Money to buy food - Transporting food - Handling of food on the way - Food in the market, shop - Obstacles in the distribution of food.	Discussion on obtaining food Role playing(to feed the family).

Children's Responsibility in the Home

CHILD'S NAME: ----------

CHILD'S AGE: ----------

I cooked

I swept house

I looked after the baby

I collected firewood

I went with mummy to the garden

I fed the chicken

I fetched water

I took a message to our neighbour

etc.

"My responsibilities in the home"

The teacher fills in when the child comes and reports.
The exercise would be appropriate for ages 4 - 7 years.

Diet Form

CHILD'S NAME: ----------

CHILD'S AGE: ----------

DATE	BREAK FAST	BREAK	LUNCH	SUPPER

This form could be done for a complete month so that the teacher gets an idea about each child's diet. Then the teacher holds some discussions with the parents at the end of the term of when a problem concerning diet arises.

Report on visit to Chief

(Name of the Village - Ngecha)

After greetings, the group introduced themselves and their objectives. Chief, Agriculture Officer, Technologist, were present. There were a series of questions that were compiled en-route the village. These formed the background for the discussions.

The chief stressed that they would like English, Maths and Technical work to be stressed in the curriculum. Agriculture was emphasized because youths are not showing enough interest once they acquire some education.

The point in relationship to unemployment when they leave the primary school was also discussed. The chief and his men suggested that they would like children to use the local language (Kikuyu) in the Nursery Kiswahili and English in the primary one.

They welcomed the inclusion of hygiene in the school syllabus. They would also like to see children acquire health skills since the school is not visited by health officers. They said that children should know the traditional teaching methods and encourage its use. They are very happy that science and agriculture are taught in the school.

They informed us that the government is encouraging the setting up of village polytechnic. The chief and his men agreed on the positive impact of the school on the community. In fact they compared their community with that of the Masai.

The elders felt strongly that they are of the opinion and support that the pre-primary schools should be made compulsory and free. Moreover these schools should be close to their homes for the convenience of the children. This is because of the age and weather.

They suggested that the most convenient age for the children should be three years, this would enable them to be more able and willing to attend. The government is taken the task of providing more nursery schools for the community vis a vis meals and milk for the children.

In fact, knowing the advantages of schooling to the community, they suggested that they would contribute immensely if called upon at any time. Moreover they were most in favour of primary education because this has enhanced the children knowing more about their environment, sharpening their social outlook and in fact encouraged the children at that prime age to count numbers 1 - 10. In view of these facts the elders or the community contributed their quota in making pre-school a success.

APPENDIX I

Integrated Lesson Plan (Pre-School)

School: St. George's Primary
Class: Pre-Primary E
Class size: 38 Pupils
Class Teacher: Mrs. Nyika
Demonstration teacher: Mrs. Pet Metuge
Date: Wednesday 1st August, 1979
Duration of lesson: 30 Minutes
Theme: The Home
Topic: Food
Sub-Topic: Naming Food Stuffs.

Objectives: The child should be able to:

1. Identify the various food items on display
2. Name the various food items identified
3. Sort out various food items named as appropriate to children
4. Count the number of food items sorted.

Activities: Step I. Introduction -

Teacher introduces herself by giving her name and asks children to give their names. Teacher puts food items in six heaps on the tables of the six class groups. Teacher assures children that the food infront of them will be eaten during break-time.

Step 2: Questioning:

Teachers asks children to look at the things infront of them.

Teacher asks one group at a time:

1. Can you tell me the names of the things you have in front of you?
2. Can all of them be eaten raw?
3. Name those which cannot be eaten raw?
4. What do we do to those which are raw before we can eat them?
5. Who cooks your food at home?

Step 3: Teacher gives instruction:

I want you to look carefully at the things infront of you. I want you to put together the things which are alike.

Step 4:

Teacher walks around each group and asks children to give their own reasons for sorting out the object in the way they have done.

Step 5: Teacher gives group names:

1. Bananas
2. Apples
3. Corn
4. Milk
5. Tea
6. Fish

Teacher asks children to count the food items in their collection. Also teacher shows flash cards in pineapple, banana, eggs, cabbage, corn and fish.

Materials:

Assorted fruits, vegetables, legumes, eggs, flash cards, banana, eggs, cabbage, corn and fish.

Evaluation:

Step 6: Oral Evaluation

1. Teacher holds items of food in front of the class and asks children to name them.
2. Teacher holds two types of food stuffs and asks children to group them orally.
3. Children are asked to count the number in each set of food item, the teacher is holding.

APPENDIX II

Primary One Integrated Lesson Plan (Science, Mathematics, Social Studies

St. Georges Primary School Nairobi (Urban Area)

No. of Pupils: 41

Date: 1st August, 1979 (Wednesday)

Time: 30 Minutes

Theme: The Home

Topic: Food

Sub-Topic: Naming food-stuffs

Objectives: Pupils shall be able to:

1. Form and name members of sets of foods e.g. sets of fruits, vegetables, colour, size etc.
2. Count the numbers in each set.

Materials: Oranges, paw-paws, bananas, pineapples, spinach, potatoes, beans, peas, maize grains, rice, wheat, sugar etc.

Preparation: 1. Divide the class into 6 groups
2. Each group is given a number written on a card.
3. Assorted food items are put in 6 heaps

Introduction: Asks the pupils to name the food they ate last night.

Presentation:

Step 1: Please look at the food items in your groups

Step 2: Name one of the things you have in the heap (each group is given a turn and each time an item is mentioned, each of the groups is asked to put it aside from the heap).

Step 3: Put the following together in one group. oranges, paw-paws, bananas, pineapples, tomato.

Step 4. Put together: spinach, potatoes, beans, peas, carrots, sukumawiki (Kale) etc.

Step 5: Out of the remaining items (things, name those that must be cooked before eating. rice, maize, maize flour, wheat, wheat flour, tea-leaves etc.

Step 6: How many items are in steps 3, 5, 5?

Step 7: What colour is the tomato, maize grain, maize husks etc.

Step 8: Put potatoes of the same size together.

Step 9: What food (dish) is usually prepared at home?

irio, ugali (porridge) rice etc.
maize
beans
mixed peas
potatoes

Conclusion

The teacher reminds the children that it is necessary that they eat clean food with clean hands. So, at break time, they will have to wash their hands, wash the food-stuffs used for the lesson and eat them.

Note

Approach of integrated subjects needs more time than the single subjects.

Class Teacher: Miss Kamata

Demonstration Teacher: Mr. I. Rameou

APPENDIX III

An Integrated Lesson Plan: Social Studies, Science and Mathematics

Muchatha Primary School (Rural area)

CLASS	TIME	NUMBER OF PUPILS	DATE
One	30 Min.	41	1st August, 1979

Theme: The home

Topic: Food

Sub-Topic: Naming Food Stuffs

Objectives:

1. Pupils should be able to form and name members of sets of food e.g. sets of fruits, vegetables, etc.
2. Pupils should be able to count the members in each set.

Materials:

Samplas of different types of food e.g. maize grains, beans, wheat, oranges, potatoes, onions, bananas, sukuma wiki, tomatoes, etc.

Preparation:

Divide the class into groups of about five.

Introduction

Through an oral discussion, pupils will mention a few food stuffs they had eaten the previous night.

Presentation

Step I

Pupils will break into their groups and display the food samples.

Step II

By means of guided questions, pupils will sort out and group the food samples using a certain criterion.

Examples of questions:-

(a) Do you have samples of food which are similar?
(b) Are there some which are different?
(c) Can we keep those which look the same together?

Step III

Through guided questions, different groups will report to the rest of class of the various sets they have formed. Pupils will count the members contained in each set. Different groups will compare their sets. They will also find out which sets hold more and by how much.

Step IV

Through guided questions children will sort and clas sify the food stuff in any way which seem most appropriate to them. They will be encouraged to say the criteria they have used giving reasons.

Conclusion

The teacher will remind the pupils the health rules to observe before eating, e.g.

(i) washing of hands
(ii) washing the fruits

Children will eat the fruits used for the lesson during break time.

N.B. The lesson was conducted in mother tongue: Kikuyu.

APPENDIX IV

Pre-School Lesson Plan

Number of Children: 56 children

Time: 30 minutes

Date: Wednesday 1st August, 1979: 9.30 hours.

Theme: The home

Topic: Food

Sub-Topic: Naming food-stuffs.

Objectives: The child should be able to:

1. Identify the various food items in a display
   Name the various food items identified.
2. Sort out various food items named as appropriate to children.
3. Count the number of food items sorted.

Activities:

Step I - Introduction

- Put food items in heaps according to number of groups in class.
- Ask children to name the food stuff they eat
- Ask them to say who prepares the food.

Step II

- Ask children to look at the various food items in front of them.

Questions

(a) Can you tell me the names of the foods you have in front of you? (Ask groups one at a time).

(b) Can all of them be eaten raw? Name those which can be eaten raw.

(c) Do they all come from trees? Name those which come from trees.

Step III:

Teacher ask people to look carefully at the food in front of them.

Questions:

(a) Are they all the same shape?
(b) Are they all of the same colour?
(c) Are they all of the same size?

Teacher ask pupil to put together all the things which are alike.

Step IV:

Teacher walks round each group and talks to children - children sort food stuff according to shape, colour, size.

Step V:

Teacher asks children to count food items in front of them - Children count food items and give answers.

Materials:

Assorted fruits, vegetables, meat, fish, cereals, legumes, eggs, water, buckets.

Step VI: Oral Evaluation

1. Teacher holds items of food in front of the class and asks children to name them.
2. Teacher holds 2 types of food-stuffs in front of the class and asks children to group them.
3. Teacher asks class to count the number of food items she is holding in front of the class

End of Lesson:

Share biscuits, ask children to wash hands, eat their biscuits.

APPENDIX V

Evaluation Sheet

School:	St. George's Primary
Class:	Pre-primary
Class size:	38
Classroom equipment:	Well equipped with wall charts
Age range:	5.2 Years - 5-8 Years.
Duration of lesson:	37 Minutes
Language used:	English ( ) Local ( ) both ( )

Which objectives were followed during the lessons?
Pre-primary

1. Identify the various food items on display
2. Name the various food items identified
3. Sort out the various food items named (as appropriate to the children)
4. Counting the number of food items sorted out.

Primary

1. Form and name members of sets of foods (e.g. sets of fruits, vegetables) colour, size, etc.

2. Count the numbers in each set.

Which objectives were achieved?

Write the number 1, 2, 3, 4,

Are the steps prepared in the lesson plan realized during the lesson? (or general comments if lesson plan is unavailable. ( ) Yes ( ) No.

If the steps prepared are modified, explain why.
(Steps were modified because children knew everything. They were ahead of the lesson.

What teaching - learning methods have been used?

1. Class teaching ( )
2. Group work ( )
   - performing same activity ( )
   - performing different activity ( )
3. Teacher demonstration ( )
4. Teacher's experiments ( )
5. Pupils' experiments ( )

How did the pupils and teacher interact?	Often	Some-time	Never
Teacher interacting with whole class	( )	( )	( )
Teacher interacting with some pupils	( )	( )	( )

	Often	Sometime	Never
Pupils asking many questions	( )	( )	( )
Teacher talking a lot	( )	( )	( )
Teacher guiding discussions among pupils	( )	( )	( )
Pupils discussing among themselves	( )	( )	( )
Pupils showing interest	( )	( )	( )
Pupils working on their own	( )	( )	( )

	Yes	No
How were the materials used?		
Has the work with the materials been enjoyable?	( )	( )
Has the materials been useful?	( )	( )
Has the material been so difficult?	( )	( )
(Care ought to be taken to ensure that all children count from one to nine).		
Did the materials give rise to new ideas?	( )	( )
Have the pupils been able to work with the materials without the teacher's help?	( )	( )

What are new ideas for such a lesson?

The lesson was restricted by the objective and so the new ideas of the children could not be develop.

Comments or suggestions to improve the lesson;

English was fluently spoken by the children. The socio-economic background of the children was such that it puts them in the upper income racket

The Integrated Curriculum

Introduction

During the time of the Romans, there existed a single body of knowledge known as Philosophy. It was out of this single subject that the others we know of today emerged. For example

Breakdown of Biology into Special Fields

Table I

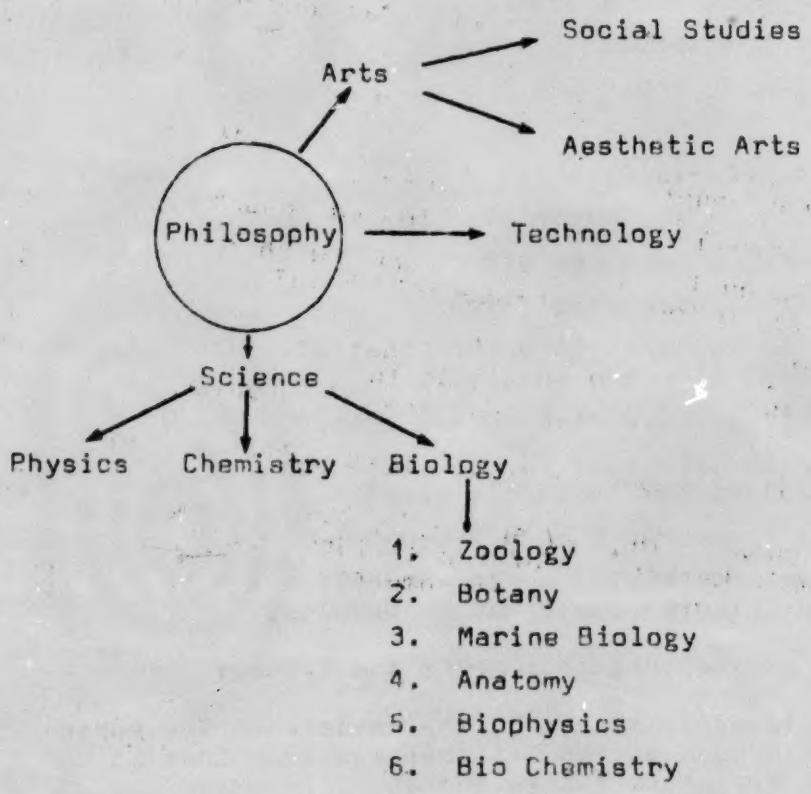


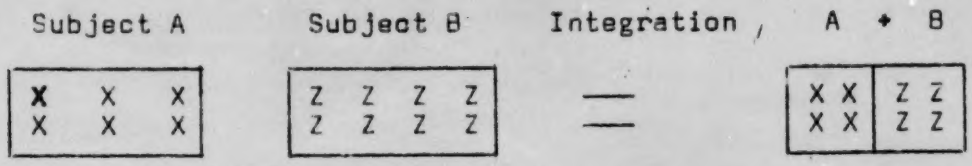
Table One shows the breakdown of Biology into six smaller units. These special areas overlap in many respects.
Over time, it was realized that "over specialization" is leading to too many people doing the same thing but using different approaches and terminologies. The fact that time and man power were being wasted was also recognised.
Specialists in various related fields then felt the need to establish the relationships that exist within their various fields.

Also with the acceptance of the Philosophy "Learning by doing" in early childhood education the need for a new breed of teachers arose:- Teachers who understood children, who knew the interests and needs of children and how to translate them into effective learning activities. These teachers must not necessarily be specialists of physics or chemistry, but they must know enough about all subjects so that the various needs of children in the class can be met. Furthermore the demand arose for providing more flexibility in classroom organization so that children can work together and carry out projects.

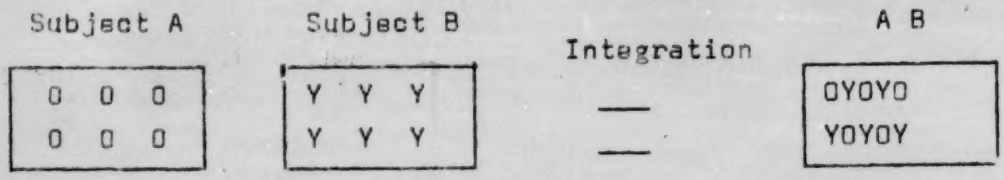
All these factors led to the idea that subjects ought to be put together into Integrated Curriculum or the Broad-Fields Curriculum, as against the subject matter or Care Curriculum Development approaches that was used before.

Project teaching, problem centered learning, units of work, centers of interest etc., are terms which describe children's activities centering about unified studies, cutting across the boundary lines of subject matter areas.

The problem that later arose was the form the integration subjects will take. The first which is referred to as type I is graphically represented thus:-



In this figure subject A and subject B are integrated to form subject A + B. For example, social studies, when taught as geography, history, economics etc., is following the type one approach to integration. The second type of integration which is referred to as type II is graphically represented thus:



In this type of integration, there are no special subjects but essential areas of interest are recognised within the subject fields. Curriculum is planned in this case as process and content designed to effect learning that is of use to the child.

The type II kind of integration is better for curriculum development in early childhood education because it caters for facts such as:

1. There is no isolatable disciple
2. There are many kinds of knowledge
3. For human beings generally knowing is better than knowledge
4. The approach caters for individual differences among children
5. Children's ability to read and concentrate is still very limited.

The critism levelled against the integrated curriculum approach are:

1. It lacks adequate theory to back its methods.
2. A teacher may make one form of knowledge (that which he knows very well) dominant.
3. There may be over learning in the direction of the child's interest if the teacher is not cautious.

Teacher's Guides for using the Integrated Approach with Children

A good unit or area of interest should deal with experiences that really justify careful study. The fact that children are interested in a topic is not enough, the experience must contribute to the child's understanding of the world and significant human activities. For example a unit on food, the home, and health habits would meet this criterion better than one on the circus.

A good unit must be interesting and challenging to all children and should have purposes that are meaning to them. e.g. the hospital as a topic will interest more children than a unit on factory.

A unit should be compatible with the maturity of the children. Between the ages of four and seven years children can cope with things concerned with the present better than the past, they have limited ability for comprehension and short attention span. These factors make a visit to the street market more worthwhile than reading about a market. Topics should be within the temporal and spatial sphere of the child.

A unit should provide for a variety of activities and experiences. A unit should involve projects that the children can do themselves. Children need to learn facts and also they need to know sources of information e.g. books, parents, films.

A good unit should contribute to the overall development of the child. Units that promote the acquisition of cognitive skills, socialisation methods and physical growth are more rewarded than drills or rote learning.

Children should be able to work together and individually if a unit is good, creativity in the form of writing, drawing, painting, role playing, and self expression of all types should be encouraged.

Finally, on the integrated curriculum approach

J. S. Bruner in The Process of Educ. said:- 5

"Teaching specific topics or skills without making their context in the broader fundamental structure of the field of knowledge is uneconomical in several deep senses. In the first place, such teaching makes it extremely difficult for the learner to generalise from what he has learnt to what he will encounter later. In the second place learning that has fallen short of a group of general principles has little reward in terms of intellectual excitement. The best way to create interest in a subject is to render it worth knowing, which means to make the knowledge gained useable in ones thinking beyond the situation in which the learning has occurred. 3rd knowledge one has acquired without sufficient structure to tie it together is likely to be forgotten. An unconnected set of fact has a pitiably short half life in memory. Organising facts in terms of principles and ideas from which they may be inferred is the only known way of reducing quick rate of loss of human memory."

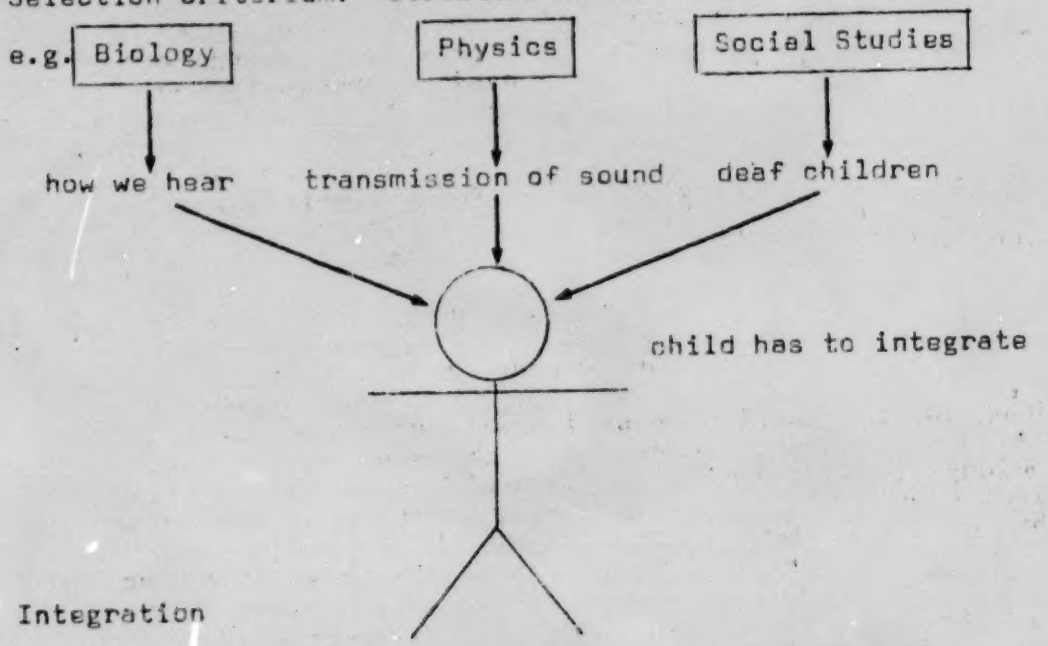
Typology of an Integrated Approach - by Brunhilde Marquardt

The following paper gives a short review on certain terms which are normally used in discussions about integrated curricula. The paper differentiates at first between a coordinative and an integrative approach and then shows different types and possibilities of integration.

Differences between coordination and integration coordination

Addition of different subject aspects based on the structure of the different subjects.

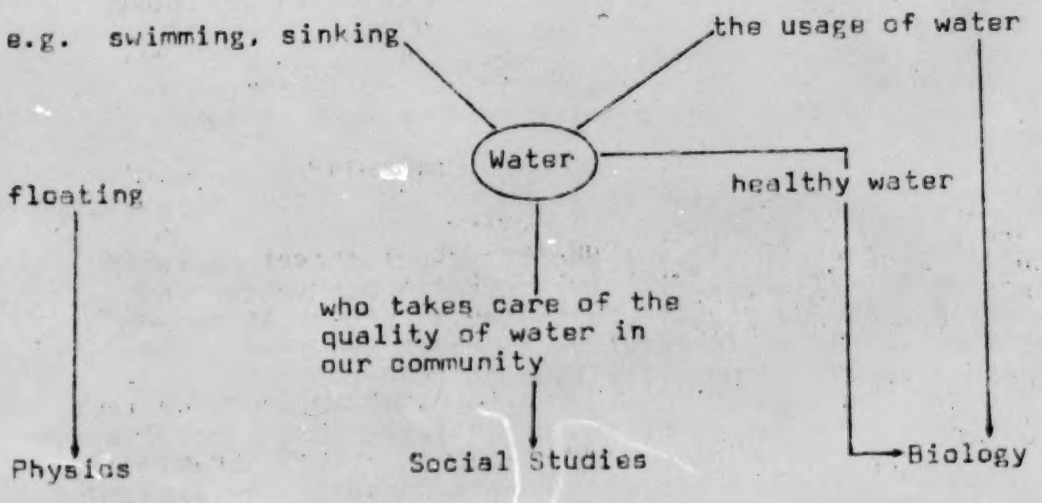
Selection criterium: Structure of different subjects



Integration

Synthesis of different aspects of a topic by means of overlapping aspects.

Selection criterium: not structure of different subjects but overlapping aspects



Types of Integration*

Integration within science:

(a) Concepts of science

e.g. energy is the selection criterium

- importance of energy in living things and non-living things.

(b) Methods of Science

e.g. observing is the selection criterium or analysing, inquiring, discovery.

Within Social Science:-

Concepts of geography e.g. home, basic needs

Within different subjects:-

(a) Topic or thematic oriented
selection criterium e.g. topic water.

(b) Situation - problem oriented
selection criterium: for children and society relevant problems or situations.

e.g. - common diseases in our village - two classmates are ill with bilharzia, how can we avoid to be ill too?

- staying in a hospital

(c) Environment oriented
selection criterium: relations between child, technology, nature, society and science; or relations between child and language.

Different Kinds of an Integrated Approach

- no subjects but areas of interest or situations
- subjects, but with reference to related aspects of other subjects.

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*The typology has been developed by Haussler, P. in FREY, K. HAUSSLER, P.: Integrated Science Curriculum: Theoretical Foundations and Approaches. Report on the 4th IPN-Symposion

USING LOCAL RESOURCES AND MATERIAL FOR EDUCATIONAL TOYS IN AFRICAN COUNTRIES.

1. The role of Toys and games in Child Development
2. Collection and Production of Educational Toys
3. The use of Educational toys and games in the development of motor abilities.
4. The use of Educational Toys and Games in the development of intellectual abilities.

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The Role of Toys and Games in Child Development

A child spends the greater part of his life playing. It is through play that he learns to survive and find some pattern in the confusing world into which he was born.

Play makes him find out what certain parts of his body or the whole body can do; control of his body balance and the co-ordination of the brain eyes, limbs etc. While playing, he exposes the material world, collects facts and learns to think. He works out his emotional problems and learns to be a social being and to take his place in the community.

Many different strands of mental and physical attainment can be seen in child at any period of play. The child who seems only to be running for the physical satisfactionthese movements give him, is at the same time solving, consiously or unconsiously, problems of speed and distance and special relationship.

Role playing helps children understand and relate to something of the grown up world that they see and hear about them. They play at being mothers and fathers, look after toy cows, drive trains and cars and so on. Unknown worlds will also be created through stories, pictures and some haphazardly collected facts.

By the time a child is two years old, the need for materials to play with is evident, so we supply what is available, clay, sand, pastry, wood, tools, paints, wheels, paper, strings, paste fabrics, bricks, building materials, sound things, pile of junk - in other words local materials collected from in and around the child's environment.

At pre-school age, we are first and foremost preparing the child for life. His education therefore should be geared towards that goal. It must lay the foundation for building the personality of the future.

The sounder the foundations the better balanced the personality will be. The life going on around the child with all its natural variety is a sufficient store of practical information for him to discover and absorb by his wn effort. It is necessary therefore that he should be accustomed to avoiding obstacles, overcoming difficulties, and work out his own solutions to practical problems to enable him to take his place in social groups which plays an increasingly important part in his life. It is therefore essential to expose the child to myriads of different materials and equipments to afford him learning opportunities.

Equipment and materials, whether toys or real do not constitute a teaching method. The quality suitability for the age group and the activities it is intended for is very important. The quality is immaterial. What is important is the equipments adaptability and usage of the equipment. Th better teaching institutions have a few but well selected equipments.

Equipment is the app ratus used in children's activities for both free and guided play.

In free play the eq ipment is used in unstructured manner while in guided play or formal education, equipment is designed for specific purpose.

Materials

Rationale

Pre-School children need to see and handle real objects as well as pictures. The pre-school teacher should realise the importance of providing plenty of suitable materials for children. When a child is provided with adequate materials he has very good chances of learning. Materials motivate a child to learn. He learns with greater enthusiasm and excitement. He learns to handle materials in many different ways. He plays with it, experiments with it, constructs with it, and sometimes he breaks it to find its composition. These explorations help a child to discover the property of materials and how to use materials in his environment.

Materials create interest, arouse curiosity and develop appreciation. Factors that are important in future learning.

Therefore the teacher should have plenty for children to see, smell, taste, feel and hear. The teacher should also be observant enough to notice when particular children need guidance in choosing materials, and on how to use certain materials. They should realize when new materials need be added and notice apparatus which children misuse and thereby make the necessary corrections.

Objective for use of Materials

1. To help children develop their discovery and creative skills by using materials.
2. To help children appreciate and learn to take care of materials.
3. To help children learn to share materials, and to co-operate with others.
4. Intellectual skills e.g. number work, language, science.
5. Development of motor skills.

Equipment should not be selected at random. It should possess certain psychological and pedagogical properties.

(a) It should be STRONG. Children are easily put off by equipment that would not stand rough treatment.

(b) It must be ATTRACTIVE and pleasant to use. Attention must be paid to the aesthetics of everything children come into contact with.

(c) It must be POLYVALENT. Child has a way to make use of equipment in so many different ways. He submits it to various tests which lead him to a new activity.

(d) The size is also important. It should be related to the needs of the age group it is intended for.

(e) Equipment should meet the needs of the children and must not be forced on them. The main basic needs will incorporate activity curiosity, need to build and pull apart, need for self expression through creativity.

(f) Equipment must allow for CERTAIN PSYCHOLOGICAL and INTELLECTUAL function to come into play. Certain classification of games bring into action the fundamental psychological structures which are found in all intellectual activities.

(g) Choice of equipment and play things is very important. Toys can be dangerous to children if they are cheaply and carelessly made. Play things with sharp edges or bottles which can drop and break and probably harm the child should be used with great care. Toys painted with paint containing lead could be dangerous to young children who like to put things in the mouth. Toys with beads which can break loose cannot be regarded as safe to young children because they can swallow them or even stick them in their noses or ears. It is important to select toys and games in relation to the ages of the children. It must be remembered that although children need to be encouraged to be curious and to explore life and the world around them they must also be protected from danger and objects that might harm them.

(i) The use of equipment should be related to the space around them.

Different types of Equipment

Equipment bought ready made for immediate use

It may more or less meet the childrens needs and be suited to the activities organised by the teacher, but it is seldom functional or polyvalent (with a few outstanding exceptions) and the qualities that sell it are not always the ones that pre-school educational institutions consider important.

Natural Equipment

Objects collected and looked after by pupils, teachers and even parents themselves. These are often very valuable owing to the fact that they belong to the child's familiar world. The use of such objects accustom the child to observe his sorrounding and to take a new look at the things he is familiar with.

Equipments made specially by Teachers, Parents or Children.

For certain purposes (such as puppets) the teacher makes the equipment she thinks most suitable. Parents can take part in the work of the school by making collective toys or set of individual toys. Such equipment is usually the objects of much affection and has the added advantage of bringing parent's and the environment into a closer relationship with the children's school life.

The Collection and Production of Educational Toys

The previous chapter; 'The Role of Toys and Games in Child Development', established the definite need for toys and educational equipment. Moreover, it pointed out that there were 3 major sources for equipment;

1. Equipment bought ready made for immediate use
2. Natural equipment
3. Equipment made by teachers (or with children)

Buying equipment is expensive. Most schools in Africa have minimal budgets. Moreover, as has been pointed out, bought equipment is seldom functional or polyvalent. Instead in Africa, where most schools are in rural areas rich in natural resources, Teachers should be encouraged to use natural equipment and involve the local community in helping them make any necessary toys.

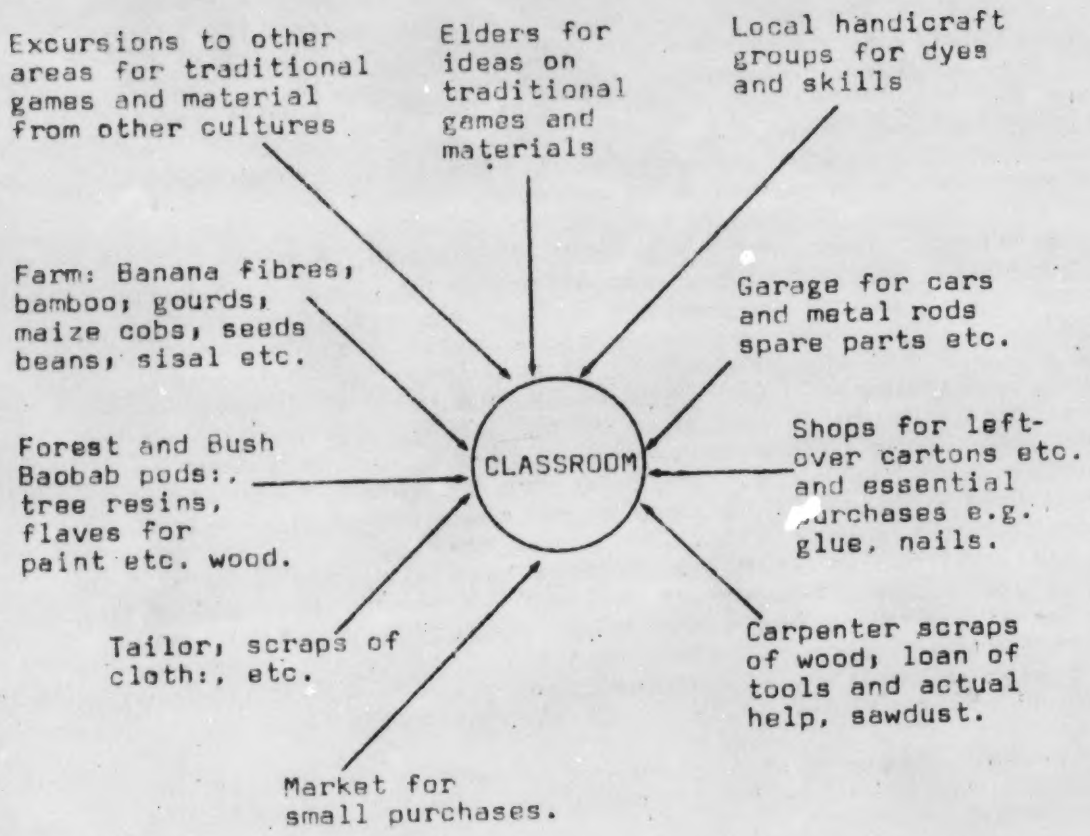
In fact, it is essential that any guidelines for the use of toys and games etc., in African schools should set out methods which use local resources and involve the community.

Collection:

The building of toys and other equipment from local materials requires a basic collection materials from the area. Rural communities are surrounded by a rich array of natural materials which can be used for production. The very sophisticated basket and mat work, masks etc., in the museums of Africa bear witness to this. At the same time, industrial/urban centres also have a fund of free waste resources which demand recycling.

The collection of these materials can and should be made an integral part of the curriculum. Not only can the child be asked to bring in the empty packages, the flower and maize cobs from his home; the teacher can also set deliberate strategies to teach his children social studies while collecting materials for the classroom.

CHART I


Excursions to other areas for traditional games and material from other cultures
Elders for ideas on traditional games and materials
Local handicraft groups for dyes and skills
Farm: Banana fibres; bamboo; gourds; maize cobs; seeds beans; sisal etc.
Garage for cars and metal rods spare parts etc.
CLASSROOM
Forest and Bush Baobab pods:, tree resins, flaves for paint etc. wood.
Shops for left-over cartons etc. and essential purchases e.g. glue, nails.
Tailor; scraps of cloth:, etc.
Carpenter scraps of wood; loan of tools and actual help, sawdust.
Market for small purchases.

For example, Chart I, shows some of the sources for materials in a small rural or peri-urban community. It is obvious that not only is the environment rich in materials but that the process of collection itself can provide a rich learning experience.

Children can learn about rudimentary economics as they collect from the community shopping centre; children can be made sensitive to the seasons and growth patterns as they wait to collect pods and fruits for glues and dyes:, children can learn more about farms and factories as they participate in the collection. They can learn about history by asking the elders in the tribe not only about traditional games but also about the old material culture: the glues, the dyes etc.

Finally, by involving the local community in the collection for her class the successful teacher will make the community feel that it is part and parcel of that school. In so doing she may well be able to persuade parents to help raise money for essential purchases or even to donate help for the production of equipment.

With a sufficient source of materials the teacher can begin producing toys. Essentially, production is a design process which involves an integration of curriculum needs with the available materials.

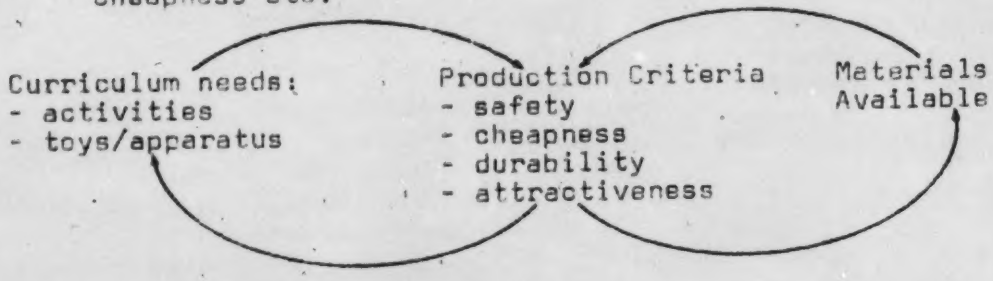
In industry the manufacturer will provide the designer with a list of the basic uses of a piece of equipment, be it an educational toy or a vacuum cleaner. The designer will then evolve an object using previous examples or inventing totally new systems. Either way the industrial designer is confident that whatever he designs in whichever materials, the manufacturer and the industrial process will take care of the production of multiple copies.

We, in Africa, have carried this highly technological design system over into our educational equipment production without questioning the basic tenets. All too often the Educational equipment rescourse books contain strict instructions for the production of multiple copies. The underlying assumption being that all teachers will have access to beautifully polished woods, glossy paint, industrial glues etc. Most teachers just do not have access to such materials nor the funds. Instead, the regional differences in the availability of materials and the financial constraints suggest that teachers should be given confidence in the design process itself. It is not necessary that everyone across Africa has a beautiful wooden cut and painted set of triangles, squares and circles for sorting and classifying. It is more important that teachers understand the underlying curriculum principles of any given equipment and therefore, can improvise its production from locally available materials.

It therefore seems that in teaching teachers how to use local materials one needs to hand over the following process:

1. The teacher must be clear about the curriculum aims of the activity and the equipment toys involved. (This comes through to specialised visual aids for upper primary as well).

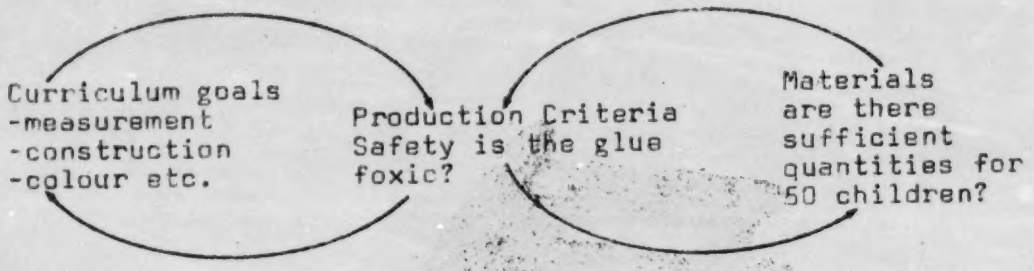
2. The teacher must then have the confidence to try and meet these needs with whatever he has available. This confidence requires the handing over of problem solving approach in which the teacher is continually evaluating the success of the artefact against the curriculum needs and production criteria (set out in paper I) such as safety, attractiveness, durability, cheapness etc.



Production of Equipment and Toys by the Teacher with the Children:

The collection of both rural and industrial rescourse materials gives the teacher a fruid of materials for the children to make toys:

In producing toys with children the teacher has to be aware of a similar range of design problems as set out above.



Apart from being clear on the curriculum goals for the activity - (construction, measurement, small motor activity etc.) the teacher must make sure that she has sufficient quantities of materials for the children. Finally she must also make sure the glues, pastes paints etc., are safe. There is no point housing a petrol based glue for very young children, they tend to taste things!

Matching Toy

Age: up to 6 Years.

Curriculum activity: Matching and recognition of triangle circle, square and rectangle.

Materials and production: A large calabash was cut as above. It was reasonably easy to cut. No special tools were necessary. Problam: It is important to make sure that the shapes don't fit into any other hole.

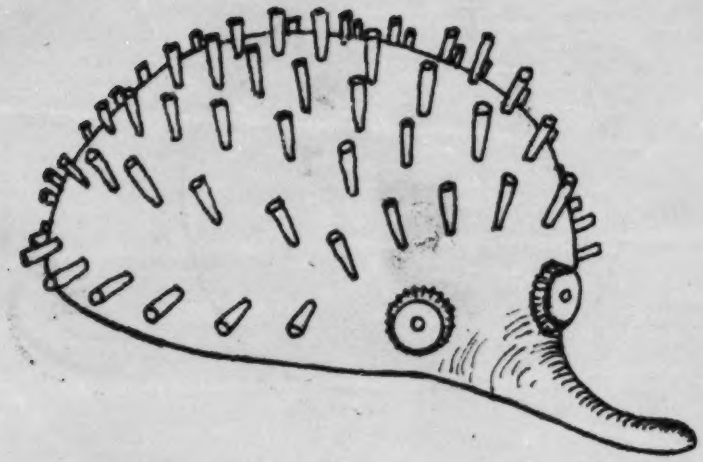
Note: Can be made from cartons.

Stacking blocks

Age: up to 6 or over.

Curriculum activity: Small motor activity, construction and play.

Materials: Most cultures in Africa eat maize. The cob make good stacking blocks. It dyed in industrial or vegetable dyes they look even more attractive.



Porcupine Pegboard:

Age: up to 6

Curriculum activity: Small motor activity; if the holes are based on 10 the columns could be used for addition.

Materials and production:

Made from ½ a gourd/calabash and twig. The calabash was easy to drill a small sharp knife was sufficient. Twigs were easy to carve.

Note:

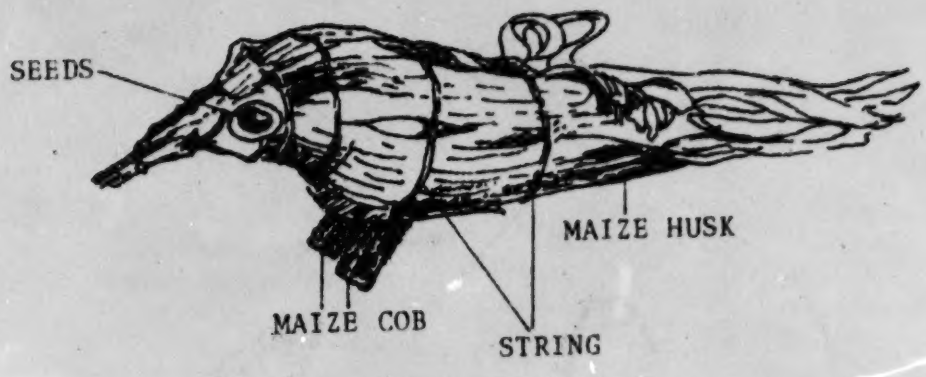
It was the shape of the gourd that suggested that it looked like a porcupine!

Age: For pre-primary children

Curriculum aims: This teaches and helps the children to recognise and match numbers.

What is it: Number five (5).

How to make it: Draw the number on a calabash and cut it following its shape, using cutting tools. Attention must be paid for not breaking the number or the calabash. Then make five holes in which you can put pegs.

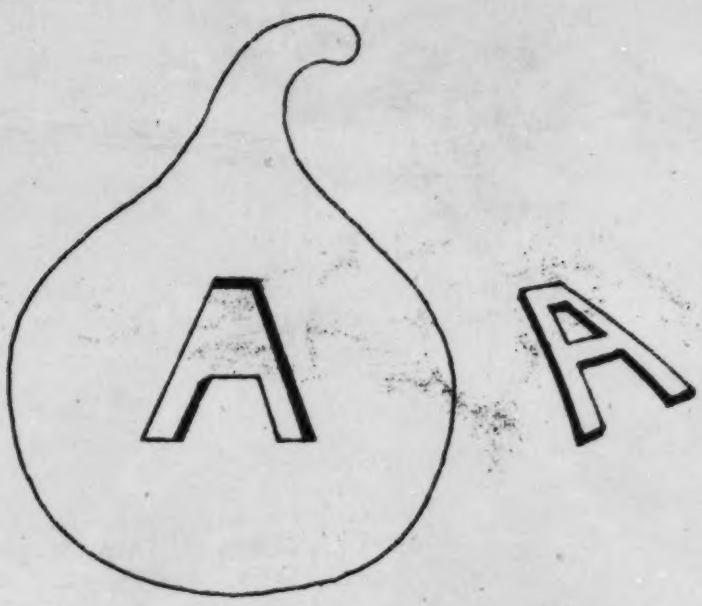


Age: Children from 6 years upwards.

Curriculum Aims: This teaches and helps children to recognise kinds of leaves and also kinds of birds, and sizes.

What to Use: The following kinds of materials are the ones to use: Maize cobs, Maize leaves, strings, seeds, banana leaves.

How to make it: After you have collected the materials then you start joining them. Tie with the string to make it firm; aiming the shape of a bird.



Age: For pre-primary children

Curriculum aims: This teaches and helps the children to recognise and match letters. This can also be used for puzzles.

What is it: The first letter of the alphabet (A).

How to make it: Draw the letter on a calabash and cut it following its shape, using cutting tools. Attention must be paid not to break the letter on the calabash.

The use of Toys and Educational Equipment in the Development of Motor Abilities:

In this section we will be concerned more with the physical development of the child and his gradual mastery of certain specific motor skills group play. In the early years of his development the child needs facilities for bodily feats in which he delights and which do a great deal to build his self-confidence and help mascular coordination as well as social integration. Due to environmental stimuli, African children tend to be particularly precarious in their early sensori-motor development. Our concern is therefore that the school should foster this active development and provide opportunities for the acquisition of both large and small motor skills through an intelligent use of a particular environment and through play. We should also take into consideration the social and cultural background of the child when designing any specific toy or game. For example, in most parts of Africa, almost every game seems to be accompanied by rhythmic movements and singing. This traditional element is quite useful in fostering in children a sense of music and rhythm as well as the spirit of co-operation and should by all means be preserved.

Activities for motor development should satisfy children's desire for movement and give them maximum enjoyment when they master the individual skills certain general principles to keep in mind when designing a toy or game for motor activities should be as follows:

(a) Strength

(b) Co-ordination of different parts of the body and that of the body as a whole.

(c) Skills in self expression through movement

(d) Self-confidence

(e) An understanding of the social world around him.

The Teacher's role in this context could be outlined as follows:-

(a) To provide adequate and suitable play equipment and space to children

(b) To ensure the safety of play-area and the equipment being used for different activities

(c) To enable children to handle play equipment and in the case of games, understand their rules.

(d) To help children to attain intended skills

(e) To encourage co-operation and interaction among children

(f) To help the linguistic and conceptual development of the child through the use and understanding of terms used in games e.g. back, front, under, over etc.

We cannot claim to give here a total list of games and toys to be used for the development of motor skills. The list anyway would be incomplete because games and toys are constantly being developed through the imagination of the children themselves as well as the teachers. It is important that the child should be given the opportunity of developing his imagination through FREE PLAY and teachers are the best placed to develop their own toys and games in relation to the background of the children and the general environment of the school. We shall therefore just suggest a few examples and give general guidelines as to how games and toys are being designed.

Motor activities can be distinguished into two main categories. Large and small. Large motor activities aim at developing the body as a whole and help coordination of different parts of the body. Small motor activities would aim at the development of one particular part of the body and the attainment of more refined and precise skills.

Skill	Game	Examples of Equipment needed
Hopping	1. Tie the right leg of one child to the left one of another, and make a race among different pairs of children.	Pieces of rope
	2. Sack-race	Empty sacks
Aiming	1. Marbles	
	2. Children aim at a hole in wheel that's spinning	An old tyre and stones
Sliding		Banana trunks on a slope
Balancing	1. See - saw	Planks Poles or Bricks A plank is placed on a pole or a brick

Skill	Game	Examples of Equipment needed
Swinging	Bull Roarer	wood and string
Jumping	High jump Long jump Leap-frogging	Bamboo sticks Old tyres well fixed in the ground can use as a tunnel also
		Materials Needed
Skipping	2 out of 3 children hold a rope and swing it - the third child tries to jump in between, taking care not to be trapped by the rope when he fails to jump, he has to go back and hold the rope while another one goes on to jump.	A long rope of about 3 - 4 metres
	SMALL MOTOR SKILLS	
Aiming, catching Hand and eye co-ordination	Ndongu- The player forms an arch with his thumb on one side and the middle and fore finger on the other side. Then he throws a Ndongu under the arch and tries to catch it on the other side before it falls down. He is allowed five throws. If he catches all of them, he wins one game. If he doesn't, he has to give the five Ndongus to his opponent to try	5 Ndongus or any small round fruit or seed.
Spinning		
Coordination of hands and body and eye movement	Spinner. The spinning thread is held stretched by the thumb on one hand and with a bent fore-finger on the other hand. Spin it round as fast as possible until the thread is completely twisted - start moving	Thin string good thread circular light objects e.g. bottle-tops, buttons wood carved into a light circular shape.

Skills	Small Motor Skills	Examples of Equipment needed
	your hands sideways and inwards gently, so that the spinner will be kept in motion as the thread twists and turns.	All of these should have two holes in the centre where thread is put through.
Stacking objects	stack coconut shells of different sizes one on top of the other from the smallest to the largest.	coconut shells of different sizes which can fit into one another - blocks of varying sizes.
Collage	1. break egg-shells into different sizes and shapes. 2. Use the broken egg-shell pieces to form patterns on either a leaf, or newspaper or just form patterns on the ground. 3. Use the pieces as eyes, nose or mouth for dolls.	1. A large newspaper. 2. A leaf 3. Glue 4. Egg-shells.
Ear and Hand-Eye Co-ordination.	Xylophone	- Resonator (sound-box) - Pitched bars, each producing a different note. - Wooden hammer used in striking the bows. The Resonator and the pitched bars are made from soft and hard wood respectively.

Climbing Frame

To make a climbing frame, you will need strong bamboo or wooden poles. The bamboo poles can be tied up with ropes of about one inch in diameter, but the poles will have to be fixed by bolts to ensure safety - the measurements of the poles will differ according to the size and age of the children using the frame. If the top cross-bar is strong and longer than the others, the two ends can be used for fixing swings. The frame should not be more than twice the height of an average child in the school. It is easier and safer for children to climb if the distance between the knots is approximately six inches. The knots can start sideways or at the top, and the dove hitch is best used because when tight it will not slip along the pole. So for a top-pole 12 feet long, you will need 23 rows downwards and 23 sideways to get squares in your net. It is better to have squares rather than diamond shapes in your net because the sides of the latter tend to move inwards when the child puts his foot on the bottom knot and he gets trapped in between. Also it is wiser to tie up the middle knots of the frames with separate pieces of rope, because when some of the ropes get worn out, it is easier to untie the knots and replace the ropes. And finally to ensure that the frame does not topple up one can either dig the four standing poles in the ground (about one foot deep) or use a U-shaped cramp turned up-side-down to fix it in.

Intellectual Skills

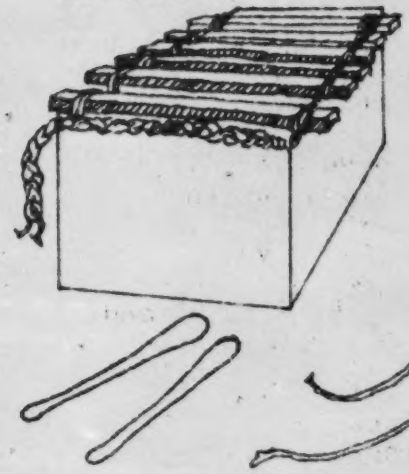
When catering for intellectual skills the importance of providing suitable materials for children should be considered. These intellectual skills include language, number-work, science concepts and problem solving.

When a child is provided with adequate equipment he has very good chance of learning. Toys especially are fascinating because they imitate things that the child sees in everyday life. When a child plays with them he imagines they are real. They are valuable in mental development of a child. Some help him express his ideas and stimulate him further. Games also offer meaningful actions, competition, alertness, originality, creativity, concentration and entertainment.

One should have specific aims when selecting and providing these toys and games.

Below are a few suggestions for development of the intellectual skills mentioned above.

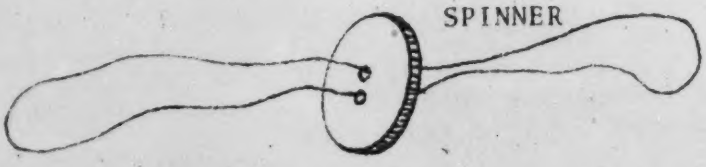
XYLOPHONE

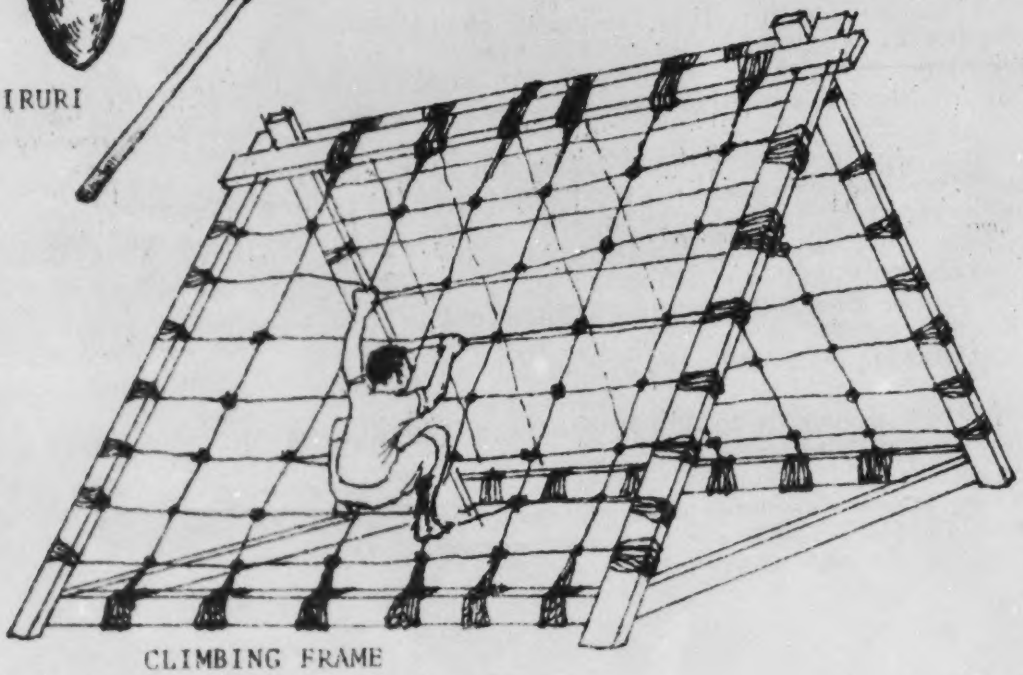


BULL ROARER

MBIRURI

SPINNER





CLIMBING FRAME

Language:

When designing and developing language activities, the teacher should keep the following aims in mind.

(a) To improve children's listening ability and concentration

(b) To build up and develop children's vocabulary

(c) To give practice in speech fluency

(d) To encourage children to express themselves freely

(e) To help children develop reading readiness.

There are many games and toys that can cater for development of language skills mentioned above. Here are a few examples.

Matching games, Rhymes and songs, puzzles, word building, chasing games, fishing games, etc.

SKILL	GAME	EQUIPMENT
Vocabulary and Reading	1. Put all the cut out fish in a basket. 2. Let children fish inturns then name or read whatever is drawn on fish card 3. Discuss what has been fished with children. 4. Continue fishing until all the fish are finished. 5. Count to see the child with the most fish.	Cut out fish with drawn pictures or words. Magnet A string basket clip.
Concentration and matching	1. Spread all the puzzles on the floor. 2. Children match the pictures that match together. 3. Go on matching and making pictures. 4. Children will name the pictures they have made 5. The winner is the child with most pictures.	Drawn pictures on cards or cardboard Cut them in pieces. Number the pictures that match at the back of each piece.
Vocabulary development	Singing Game (Kikuyu)- matching descriptions of animals with what they are called.	Animal's pictures to be displayed as the game sung and acted.

SKILL	GAME	EQUIPMENT
	Nyamu cia githakaini gutiri itari riitwa: Hiti karia mehindi Ngari - Ni gikunya andu Ngima - Kihaica miti Nduiga - Kiraihia ngingo Translation into English With wild animals there is none without a name: Hyena is bone-eater Leopard is a scratcher of people Monkey is tree-climber Giraffee is neck-stretcher	
Pre-reading	Word building Short words are written on the blackboard or a large card Children are asked to form similar words from the letters provided (each child holds one letter card only) Teacher helps say the words.	Many letters A-Z printed on cards.
Vocabulary development	Guessing Game One child is asked to observe the objects well and blindfolded, then given a chance to identify the objects when struck to produce a noise or allowed to identify another child by feeling her with guiding questions from the teacher or another child. The one who gets the most quesses right is the winner.	Different objects which can produce some noise like a whistle, drum, a tin, a bottle etc. or different children from class.

Number Work

Pre-number is quite an interesting subject to children if introduced properly. Children care to think and can think successfully when they see, hear, touch and manipulate things. Words and symbols might have no significant meaning to children, unless they can see the real objects that these words and symbols represent. Children's main interest is doing things so that they get practical result. It is felt that all children would love number work if they were properly taught. Children are busy people. They like movement, they love puzzles, matching, sorting, grouping and they are full of interest in life.

Teachers must be very careful when introducing this subject to children so as to ensure that children develop positive attitudes towards Mathematics education right from beginning.

When planning for number work activities, the following points should be considered.

To help children make discoveries about number and number relationship through:

(a) Understanding of one to-one correspondence

(b) Development of number meaning from one to ten

(c) Understanding of number symbols from one ten and possibly to twenty

(d) Having experiences related to quality space, speed, time.

(e) To develop children's appreciation for use of Mathematics in daily life.

The following are some of games and equipment which can be used in number work e.g.

The following are just a few of the samples in number work.

SKILL	GAME	EQUIPMENT
Number recognition	Ten cards which have numeral written on, then give these cards to ten children starting to one, then every child will come infront holding the cards showing the others and start dancing infront having the cards.	Cards
Writing	I am number one, I have come to dance etc., dance in middle and then run away	Transparent paper papers pencils.
Counting	A singing game 'Skip one and two Bounce three and four turn round quickly and sit on the floor knod four and five jump p again and be ready for more	
Number Value	Scoring Game About six players and about thirty bottle tops. Children play in turns, each player throws the dice. If the dice shows a certain number value e.g. 6 the player picks 6 bottle tops. The game continues until all the bottle tops are finished. The winner is with the most bottle-tops.	dice, bottle tops, stone, seeds

The constant exploration of a child leads him to gain concept about the world. He is an active investigator, always using his senses to learn and find out about things. While children are experimenting with various materials, the teacher should observe each child's performance and interest so as to offer him guidance at appropriate points.

Teachers should take advantage of these traits and provide means and ways with which to enhance their senses of awareness in the world around them. This can be done by supplying materials and experience involving the children's environment.

Below are some of the aims which the teacher should keep in mind when designing and developing science concepts.

(a) To arouse children's curiosity and interest in the world around them.

(b) To help children develop their observation and discovery skills.

Here is an example of a game which is related to science.

SKILL	GAME	EQUIPMENT
Observation	A child will stand outside where there is sun. Then one will have to run away and the other one will have to run after the shadow of the running child, and try to step on it. If a child steps on the shadow they will have to change.	Sun, Shadow

THE CHILD WITH SPECIAL NEEDS

Participants - Group IV

Mrs. K.O. Igbokwe	Nigeria
Mrs. Rosina Karnley	Liberia
Mr. S.T. Zamba	Malawi
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Preface

Special Education can simply be defined as an area with the framework of general education that provides appropriate facilities, specialised materials and teachers with adequate training for all types of children who have special needs. It may also be defined by stating its objectives as seeking to meet the unusual needs that any child may have without laying unusual emphasis on differences, or without portraying the child as different from all other human beings, since it is well known that all children are alike in the sense that they have the same basic physiological and psychological needs.

Education authorities should ensure that each learner is provided with every opportunity that will enable him benefit from the learning situations, to the end that he eventually achieves the measure of intellectual development, emotional stability, social adjustment, vocational competence and independent living of which he is capable. The rationale for special education is a thorough understanding of each child - characteristics, aptitudes, interests, areas of strengths and weakness and the use of such knowledge in the designing of educational programmes tailored to the child's needs.

"No child is ineducable: whatever the nature of the handicap or its degree of severity the child is first and foremost like all other children in his or her need for security, personal affection and opportunity to develop capacities. The greater the disability the greater the skill and determination needed to help the child." S.S. SEGAL (1974)

It is with this in mind that a team of educators met in Nairobi between 16th July - 3rd August to bring together their experience, knowledge and expertise, with a view to helping other colleagues in their respective countries to identify children's needs, early enough, and set about producing means to meet those needs in collaboration with parents, health visitors, social workers, members of the medical and paramedical professions.

Some Special Needs:

All children have certain basic physical, psychological and emotional needs, handicapped children have seven additional needs:-

(a) Early identification

(b) Full assessment

(c) Prompt medical and surgical treatment

(d) Parent guidance

(e) Appropriate education and training

(f) Continuing supervision and regular, periodical re-assessment

(g) Final placement in the community or in special care

(Mavy SHERIDAN 1 65)

The study group consisted of seven people some of whom had particular responsibilities for special educational services in their own country and the rest were interested and keen to find out more about the ield of special education.

'After a week' preparation in plenary sessions, the group met to establish a plan of work and selected a rapporteur and a group leader, set the target and the procedure.

The main aims of the exercise were as follows:-

(a) Produce a number of model programmes, syllabuses for teachers and parents' use.

(b) Sample of programmes to cover a number of selected areas of special education.

(c) These programmes and syllabuses should meet the needs of children of age range from birth to nine years.

This working group did not set itself the task of producing exhaustive lists of activities to be carried out by teachers or parents with their children in need of special help but rather a model, a method of designing curriculum aimed at educators, be they parents or teachers. It is the wish of the members of the group that what follows should be seen as a modest contribution to their African Colleagues in writing up teaching and training programmes to help children with special educational needs.

Selection of Topics

Having assessed the areas of expertise and consulted the written material available in Nairobi, the working group decided to select the following areas to work on:

	Age Range*	Agent
The slow learning child/Mentally handicapped (Educable)	Birth - 9+ Yrs.	Parent/Teacher
The Hearing impaired child (Profound)	6 Yrs. - 9 Yrs.	Parents/Teacher
The Visually impaired child (Blind)	birth - 6 Yrs.	D.C. + Assistants
The Physically Handicapped child (Cerebral Palsied)	Birth- 6 Yrs.	Parents + D.C.C. Assistant

The working group wish to point out that the age ranges mentioned above are not exclusive, this means to say that the group has put forward its suggestions by focusing on a special age range but somewhere in their presentation mention is made in general terms of what should or could be done for the children at ages preceding or following the selected age range.

What has been written out in these programmes are suggestions and it is up to our colleagues to complement, supplement and adapt these to their local contexts. The working group did not and could not possibly come forward with a unique formula for the whole of Africa and the ideas put forward should be seen as mere suggestions.

Model of Presentation:

The working group agreed that the content should be presented in two main formats:

(a) Tabulated programme

(b) Streamlined/linear guidelines

Each section has a general introduction where terms are defined the condition identified, possible causes, prevalence and possible educational approaches to meet the child's needs. These are followed by an explanation of why and how the educational programmes were developed and the method used, and towards whom these are directed. The third section consists of the programme itself either in tabulated or streamlined format.

The working group also decided to include a list of books and specimen sets of equipment and material that could be of some use to other colleagues. The list of books is far from being complete and they include to help colleagues to further their knowledge.

The working group proceeded with its work by assigning to each member a special task on each of the selected areas. Meetings were held daily to discuss the progress of each member and add information or bring about solutions to problems that might have arisen. The Rapporteur prepared interim reports for the Faculty meeting so as to keep the workshop organisers informed about the rate of progress. During the regular meetings a number of topics were mentioned in connection with the child with special needs:-

The gifted child

The socially deprived, socially maladjusted child

Segregation/Integration approach to special education

Parents as co-partners in the education of their children

Community involvement and mobilisation of existing resources.

Although all these points were of particular interest to the group as a whole, we have not had time to work on all of them. An effort has been made to include some of the issues raised in the general introduction to each of the sections covering the four selected areas of work.

Acknowledgements:

The working party wishes to express its gratitude to the Director of the Kenya Institute of Education for letting us have access to resource materials and making our stay pleasant while at work.

It acknowledges with gratitude the cooperation of group 3: Resource material and Educational Equipment which very kindly agreed to produce specimens of toys and equipment.

The working party wishes to thank D.S.E. and A.C.D. in bringing us together to share our ideas, expertise and experience for the benefit of our collegues and the promotion of the African Child, To-morrow's Adult.

Ref: S.S. SEGAL - "No Child is Ineducable" (1974) Pergamon Press

M. SHERIDAN - "The Young Handicapped Child" (1965) The Nursery School Association.

CURRICULUM FOR SLOW LEARNERS (3+ - 6+ Years)

INTRODUCTION

Rationale

"The right to learn includes the right of every child to use his own best means of learning."

Here, therefore, we feel, parents and teachers are committed to the cause of helping every child - especially the mentally handicapped.

The aim of this programme, therefore, is to provide a record to parents and teachers of 3 - 6 year children with physical, social, emotional and intellectual growth as an aid to promoting optional development. The idea that parents of the handicapped should know far more information concerning the development and disabilities of their children and become more involved in their treatment.

Providing programme for parents and teachers of 3 - 6 Year-old mentally handicapped rests on the following:

(a) The severely mentally retarded child appears less able to learn from uninstructed and unsupervised contact with his environment on which so much normal pre-school development relies. It is necessary to provide structure and guidance for the child to make up for this, and parents and pre-school teachers to be given appropriate information and guidance.

(b) Parents are in a position to provide continuing individual help which is essential to pre-school teachers.

Necessity of Pre-School Education

By increasing the ability of parents and teachers to manage and train the handicapped child which might expect:-

(a) Facilitation of the child's development leads a greater degree of independence.

(b) Less risk of a poor parent child relationship and a stressful family atmosphere.

(c) The provision of a common ground for pre-school interaction.

(d) As a result of parents becoming increasingly more articulate in stating their case and needs, a change in attitude of the general public and provisional of better facilities.

Type of Course - (a child 3 - 6 Years)

The subject matter of courses for parents and pre-school teachers is varied. At a general level, courses, can be classified as those which provide information with a view to enlightenment on general aspects of mental retardation. The current view point is that many parental problems, as distinct from child problems are the result of the inability to:-

(a) make realistic appraisal of the child's handicap and his development level.

(b) direct the child's development

(c) control child's behaviour

Therefore, the provision of a course which teaches the parent and the teacher to see the child objectively and gives him the technique for educating him in the fullest sense, should at the same time help to alleviate some of the root causes of parental problems.

Objectives of Education for Mentally Handicapped

(a) To provide for the mentally handicapped child developing habits of learning with employment leading to the experience of success.

(b) To help him to develop awareness and understanding his environment.

(c) To provide for the mentally handicapped child in the early year of schooling balanced and co-ordinated education experience made up of the development of communication skills, sense training, self-control, etc.

Presenting the Task

In this particular situation the teacher or the parent must be capable of estimating and producing the favourable conditions before embarking on training. The training must be in terms of short periodic session.

The task should be presented in a meaningful sequence of small steps with complete mastery at each step.

The parents or teachers must understand the nature and use of reward, i.e.

(a) The reward must always be consistantly applied

(b) The reward must be given immediately the behaviour has occured

(c) The reward must be appropriate for the child.

Evaluation

It is necessary that progress with any task is constantly evaluated. So that one has a constant assessment of the child and his behaviour which will help future training.

Curriculum Activities

The programme is meant for an integrated situation in a day care centre or formal pre-school system. Curriculum activities at this stage are centred around sensory motor training, personal hygiene, habits training, language development and social and emotional growth.

Tasks are learned in school which will carry over values in the home and neighbourhood. Within this period of development, the teacher ensures for the child, the acquisition of skills needed to make an easy transition into the primary level. The materials used and the experience provided are planned to help the child to develop the perceptual base upon which future learnings can be constructed.

TOPIC	OBJECTIVES	CONTENT	ACTIVITIES	MATERIALS AND RESOURCES	EVALUATION
Physical Competences	At the end of these units, children will be able to: (a) carry out all the gross motor skills successfully.	1. Developing gross motor skills	Walking, rolling, marching running, jumping in one place using both feet, kicking, bouncing and catching a large ball, building with large blocks.	Rolling blocks, drums, etc. Skipping ropes, bars, small balls and large blocks.	Can children carry out all the activities without teacher's help?
	(b) Carrying out of the fine motor skills efficiently.	2. Developing fine motor skills.	Using an opposing grasp of thumb and fore finger stringing large beads, using co-ordination puzzles, and form boards, using brushes and chalk, learning to manipulate large crayons.	Large pencils, threads, puzzles, cards, brushes, chalk, seeds.	"
	(c) Carry out all skills which go to develop visual sense successfully	3. Developing visual skills.	Sorting objects by: colour, size shapes identical size. Matching objects by objects.	Books, paper, bottles bottle tops, cloth material, objects with different shapes and objects of the same kind	"
	(d) Carrying out all the auditory skills successfuly	4. Increasing auditory skills	Differentiating between loud soft, sounds, identifying direction of sound, identifying different sounds.	Whistle, bell, banging doors, shouts, tape sounds, etc.	"
	(e) differentiate between: hot and cold wet and dry hard and soft smooth and rough successfully.	5. Developing tactile skills	Differentiating between (a) hot and cold (b) wet and dry (c) hard and soft (d) smooth and rough Recognizing large forms with eyes masked.	Wet and dry material hard ball and soft cotton Mirror and sand paper	"
	(f) Differentiate tastes by tasting.	6. Developing tastes discrimination	Testing new food differentiating between tastes, eating a variety of foods	Ripe mangoes, sour milk, sugar, lemons oranges and any local foods.	

TOPIC	OBJECTIVES	CONTENT	ACTIVITIES	MATERIALS AND RESOURCES	EVALUATION
	(g) Children will be able to recognize things by odour recognize foods by Aroma	7. Improving olfactory discrimination	smell different things with different odour smell different foods with different aroma	Different kinds of flowers, of food and different kinds of perfumes.	
	(h) Carry out sensory skills successfully	6. Developing sensory motor skills	Playing with large and small blocks, manipulating construction toys, duplicating fingers constructed with blocks, reproducing designs, reproducing vertical lines - with finger, with chalk on board, with large crayon on news print.	Chalk, blocks, toys, crayons newsprint, brush, etc.	
Personal, and social competences	(i) At the end of these units children will be able to:- - form all self help skills successfully	1. Developing self-help skills	Using the toilets, dressing, using spoon with skill, eating a variety of foods	Spoons, different types of foods, different articles of dressing toilet rolls, wash hand basins, soap, etc.	Are the children able to perform all self help skills successfully?
	- Adjust clothing, wash hands, face, feet, brush teeth correctly.	2. Developing self-care skills	Adjusting clothing, learning to wash hands, face, feet, brushing teeth.	Clothes, water, soap basin, tooth brush, tooth paste.	"
	- Adjust to situations which foster good mental health	3. Fostering mental health	Separating from home, tolerating a group setting, adjusting to daily routines accepting reasonable goals, accepting external control of behaviour, developing tolerance, adjusting to limits.		

TOPIC	OBJECTIVES	CONTENT	ACTIVITIES	MATERIALS AND RESOURCES	EVALUATION
	to show adjusted behaviour to social requirements	4. Adjusting behaviour to social requirements.	Recognizing and accepting authority, adjusting to school and regulations, learning basic rules of safety, beginning to use skills of courtesy, improvising manners, learning to participate in field trips.		Are children able to show adjusted requirements behaviour?
Cognitive Proffi-ciency	Children will be able to use language for communicating, needs involving recognizing, understanding, participating, knowing and identifying.	1. Developing and using language	Communicating needs, recognizing and naming family objects, understanding limited directions, participating in singing songs and in rythmic games, engaging in play house activities, knowing and repeating his first and last name and age, recognizing and naming primary colours, listening to short stories, ryhmes and records, identifying objects in pictures.	Articles with primary colours, object in pictures, familiar objects etc.	
	Children will be able to show in number concepts involving, recognizing and using quantative concepts numerical concepts of one relationships to another	2. Developing number concepts	Small stones, bottle tops, stocks of different sizes or short and tall, long and short, quantity of water, etc.		
	To react to show environmental awareness in weather, time allocation, passage of time etc.	Increasing environmental awareness	Discriminating between different and of weather learning to orient self to school and play ground, learning to adjust behaviour to different environmental requirements, developing some sense of the sequence if events associated with gross time allocations, developing the concepts that time passes.	Clocks, weather charts wind vane.	

((Age level 3 - 6) Pre-Primary School Teacher)

TOPIC	OBJECTIVES	SUBJECT CONTENT	ACTIVITIES	MATERIALS AND RESOURCES	EVALUATION
A. Teacher Management Pre-Primary Objectives	To enable the teacher understand objectives of the pre-primary school as learning and a community institution	What are generally included in the pre-primary school objectives - i.e. socialization, education, health and nutrition, assistance to working parents.	Handouts on the country's objectives, discussions communication and other teaching programmes and lectures	To be found in the country's policy, objectives could be used as background information.	- Can teacher run the pre-primary school very well? - Agents - group co-ordinators - Inspectors from Ministry of Education.
B. Working with the community - Social, cultural and economic conditions	To familiarize the teachers with their cultural and social environment. To promote an understanding of the teacher's behaviour. To be able to relate the lessons to the other relevant activities in the community.	Information about the history, geography and economics of the country. Listing values, norms, beliefs relating to the country and its differing regions. Traditional culture in relation to new and changing beliefs.	Fact-finding communication between parents, health workers and teachers by interviewing the community.	University, training institutions for teachers colleges, news papers and people in the community magazines, charts, books, articles.	"
- The community's role in the pre-primary school.	To enable the teachers to utilize available resources (e.g. personnel, village leaders, and other citizens)	Identification of resources (e.g. personnel, village leaders and other citizens).	Finding out the community's expectations on pre-primary school by means of interviewers, group discussions and setting priorities with parents. Inform and educate the parents through meetings and handout materials.	Nursery School Policy handouts of Kenya page 1278. Visual Aids, showing growth observation of children of different ages i.e. 3 - 6 years of age, specific books, films, etc.	"

References.

1. National Society for Mentally Handicapped Children North West Region.

2. Teaching Day Care Centre Assistants. A Course Manual - UNICEF, 1977.

3. Teaching Trainers of Day Care Centre Personnel UNICEF - 1977.

4. Special Education, Official Journal of the National Council, Volume I Number 3, September, 1974 Page 3.

CURRICULUM GUIDELINE FOR THE EDUCABLE MENTALLY HANDICAPPED CHILDREN

(Chronological age 6+ - 9+)

Rationale

Education is the social instrument through which the culture of a people is perpetuated, implemented, and refined. To fulfill this basic purpose, education must serve not only the intellectually gifted and academically adequate; but also the needs of those who display a wide variety and range of different learning patterns. For every school age pupil to have available educational opportunities consistent with his abilities, school systems should plan and develop diversified programmes to satisfy diversified needs. Because they do not remain children but become adults, the primary goal in their education is community life adjustment. With adequate education both normal and mentally retarded children learn to become contributing members of society.

The guideline is meant for the mentally retarded child who is educable and can also function within a regular classroom but needs special individual attention on the prescriptions stated herein.

Mental Age versus chronological age:

Differences in rate of maturation, in the quantity of learning, and in the specifics to be taught are the imperatives for a special educational programme for the educable children who are mentally retarded.

Before I proceed I have to differentiate between mental age from chronological age. Chronological age is the age of the child calculated (in time) from the moment the child is born. Mental age is calculated on performance of an individual on certain standardised tests. To illustrate a nine year old child might be performing on mental age of six. These differences in rate of maturation should influence the special educational programme for the educable child and youth who are mentally retarded.

The functional intent of the guidelines is to encourage operation within the identified needs of the educable children who are mentally retarded, recognizing patterns of sequential development and readiness for learning. The focus is on the individual and the requirements leading to the attainment of essential competencies. The curriculum outline suggests areas of interest to be explored skills and abilities to be developed, and concepts and generalization to be taught.

A child may enter this programme when he becomes eligible for public school attendance, that is at chronological age six plus. The programme is free of an expected annual promotion or retention of the pupil. The objectives are the attainment of physical competence, personal and social competencies cognitive cum-vocational proficiencies through a programme of functional experiences.

Physical Competencies:

The ability to coordinate and to use the body efficiently in working tasks and recreational areas, to develop stamina and to construct good health patterns consistent with the optimal level of the individual, considering the limitations of physically handicapping conditions.

Personal and Social Competencies:

(a) Personal competency is the ability to make maximal use of the physical, emotional, and intellectual aptitudes so that the individual may develop internal controls and function to optimal level.

(b) Social competency is the ability to adjust behaviour and to live successfully in a social group.

Cognitive cum Vocational Proficiencies:

The child is at a point in the learning process where he has acquired some perceptual base and needs to acquire experiencies in building a foundation of concepts. Vocational proficiencies is the ability to develop work skills and attitudes which derive from participation in experiences that will allow him to compete within the community job market.

Transitional Level

As the child is mentally retarded at age 7 - 10 he might have attained a mental age approximating five years. This segment of the curriculum is planned for a child with a mental age from five years to six years six months. While the curriculum content of this level is based on the child's prior physical, mental, psychological and social experiences the scope and sequence of the curriculum reflects his changing needs and abilities. There is continuing necessity for developing and refining physical competencies. Gross motor control may have improved considerably with experience and practice, but the fine motor control skills and sensorimotor coordination need further development. The teacher should assist him to move to the next point in the learning process.

Improvement in personal and social skills is beginning to become important. The child needs to acquire the concept of self as an acceptable, adequate person in certain settings. He must learn to operate with some conformity and security in social situations.

The curriculum begins to acquire structure and provide opportunities for the development of many experiences, concepts and observations. The learnings are still mostly concrete but move into semi-concrete areas and towards the abstract. The child is building readiness for the more formalized instructional tasks at the next level.

Minimum to Maximum Expectancies and Activities

Physical competencies

A. Refining Gross Motor Skills

(i) Running smoothly
(ii) Hopping on one foot
(iii) Gliding
(iv) Galloping
(v) Kicking a ball
(vi) Throwing and catching a ball
(vii) Crawling through cloth tunnel
(viii) Crawling through obstructed masses
(ix) Learning to jump a rocking rope.

B. Developing and Refining Fine Motor Skills

(i) Building with small blocks
(ii) Stringing small beads
(iii) Using pegs and peg boards
(iv) Learning to colour in lines
(v) Learning to cut around a design
(vi) Learning to use large primary pencils
(vii) Learning to play with jig saw puzzles

C. Improving Visual Motor Skills

(i) Learning to trace a design
(ii) Learning to complete a simple design
(iii) Reproducing lines and circles at easel or chalk board
(iv) Using large crayons on newsprint
(v) Copying simple forms
(vi) Printing name in large form
(vii) Copying labels and signs.

D. Improving Visual Skills

(i) Matching objects to pictures
(ii) Matching pictures to pictures
(iii) Sorting shapes
(iv) Improving eye accomodation from far to near point

E. Increasing Auditory Skills

(i) Learning to listen for specifics
(ii) Learning to improve speech sounds by listening

F. Improving Tactile and kinesthetic skills

(i) Tracing design with finger
(ii) Tracing large letters with finger
Using sand paper letters
Using felt or velvet letters
Using raised paper letters
Tracing drawn line.
(iii) Using sponge, rags, stick, and other articles.

Personal and Social Competencies

A. Developing Responsibility in physical health.

(i) Improving self-help skills previously taught
(ii) Learning to follow simple rules for preventing spread of diseases
(iii) Observing simple safety precautions

B. Fostering Mental Health

(i) Improving self-identity
(ii) Developing acceptance of self
(iii) Learning to adjust behaviour to fit setting and expectations
(iv) Accepting changes in routine and structure
(v) Recognizing the need to develop internal controls of emotions and behaviour.

C. Acquiring Social Skills

(i) Improving ability to conform
(ii) Learning basic morals and ethical standards
(iii) Accepting family, school, and community authority figures.
(iv) Increasing cooperative participations in group activities
(v) Developing socially approved manners
(vi) Becoming aware of sex differences

D. Developing a Fund of Experiences

(i) Taking field trips into the neighbourhood
(ii) Participating in dramatic play about experiences
(iii) Sharing the experiences of another classroom
(iv) Having a party or entertaining guests.

E. Developing and using language skills

(i) Listening:

- Following two or more directions
- Listening to short stories and records
- classifying objects
- Distinguishing right from left

(ii) Using oral language:

- recalling events from short stories and records
- relating immediate experiences
- contributing to group experiences
- increasing vocabulary
- relating events in sequential order
- learning to answer the telephone (where it exists)
- asking questions about new things.

F. Continuing to develop Reading Readiness Skills

(i) Increasing fund experiences
(ii) Increasing oral vocabularies
(iii) Relating experiences
(iv) Auditory discrimination

- initial consonant
- rhyming words

(v) Visual discrimination

- matching
- labels
- names of class-mates

(vi) Writing cooperative stories (written and read by teacher)

- teacher developed
- by teacher and pupil
- by class participation

(vii) Reading experience stories

- writing story on board by teacher
- transferring to chart by teacher
- building stories from sentence strips in chart holder - matching by children
- reconstructing sentences with phrases cut from sentence strips - matching by children

(viii) Developing sight vocabulary

(ix) Developing picture clues

- connecting happening in sequence of pictures
- using clues for association of words

Vocational Proficiency.

A. Developing Vocational Attitudes and Habits

(i) Learning to follow more than one direction
(ii) Learning to be responsible for materials and property
(iii) Developing skill with simple tools.

- chalk
- paint brushes
- crayons
- stylus
- larger primary pencil
- scissors
- clay
- wooden mallet
- hammer
- saw

(iv) Performing tasks

- using no tools
- using tools associated with tasks

(v) Developing a sense of time associated with a task
(vi) Learning to adapt behaviour to group activities
(vii) Learning to accept critical analysis of task performance
(viii) Developing the ability to evaluate own performance
(ix) Learning to appreciate the work of family members
(x) Contributing to the family by performing simple tasks

B. Developing Number Concepts

(i) Recognizing and using more quantitative concepts such as
- heavy - light
- more - less

(ii) Recognizing shapes

- circles
- square
- triangles

(iii) Developing concepts of

- four
- five
- six

(iv) Developing visual recognition of groups of objects without counting
(v) Learning to count objects
(vi) Learning to compare numbers in groups of objects
(vii) Learning the relationships between concepts of numbers and number symbols
(viii) Learning concepts of

- first
- second
- last

(ix) Understanding simple money values
(x) Developing concepts of distance

C. Continuing improvement in Environmental awareness

(i) choosing appropriate clothing for weather
(ii) Learning to orient self to

- immediate neighbourhood
- home
- school

(iii) Continuing to adjust behaviour to different requirements
(iv) Developing gross time allocation such as

- morning
- afternoon
- night
- today
- yesterday
- tomorrow

(v) Associating passage of time with task

(vi) Developing time allocation based on the hour.

Curriculum Guideline for the Profound Hearing Impaired Children

A General Background

Definition

Hearing impairement refers to disorders in hearing that might result to limitation on the perception of speech and this results to inability to acquire language by natural means. Thus the handicapped child is not able to understand what is being said, spoken, read, and written unless trained.

It has been estimated that 5 percent of school age children have hearing levels outside the range of normal and that one or two out of every ten in this group require special education attention.

Classification of the Hearing Impaired

(a) Partials: These are the hearing impaired children who have got residual hearing and, although the development of their speech and language is retarded, they can be integrated within the regular school system. This is provided they are given adequate facilities such as Individual Hearing Aids, peripatetic teachers, resource materials, etc.

(b) Profounds: This group of the Hearing Impaired have no intelligible speech and language. Thus they have to be speech and auditory trained leading to language development which is a vital tool of communication.

However, detailed classification has been done by Rushfard under the following headings:-

(i) Group A - Mild Hearing Loss, 25 - 40 decibels (dB) as recommended by International Organization for Standardization (ISO).

(ii) Group B - Hard of Hearing, 45 - 70 dB (ISO)

(iii) Group C - Borderline Severely Hard of Hearing, 75 - 85 dB (ISO).

(iv) Group D - Severely Deaf, 90 - 105 dB (ISO)

(v) Group E - Profound Deaf 105 dB - no response. (- A very rare condition for no body is stone-deaf.)

Methods of Identifying Hearing Loss:

(a) Medical Identification would include:

(i) Audiologist,
(ii) Psychologists
(iii) Pediatrics
(iv) Speech therapist, etc.

(b) Non-Formal Testing

(i) Child cannot respond to his name even though called
(ii) Does not respond to ringing of telephone, banging of the door, rubbing of paper near his ears (6 inches approximately) etc.

Causes of Hearing Loss

Pre-Natal	Neonatal	Postnatal
1. Heredity 2. Prematurity 3. Anoxia 4. Diseases such as Rubella during pregnancy 5. Drugs.	1. Jaundice 2. Accident	1. Meningitis 2. Convulsions 3. Accidents e.g. pricking the eardrum. 4. Poor health care in infancy.

B. Rationale

Every hearing impaired child should be taught speech, speech-reading and auditory training as these models of communication enhance intellectual and social development of the handicapped children. There is need to integrate the deaf into the society to enable them to understand what goes on in the society through action programmes such as television, games, etc.

Within the pre-school, the hearing impaired children should be helped by the parents and teachers in:-

(a) Speech Readiness
(b) Auditory Training
(c) Lipreading (speech-reading training)
(d) Articulation Readiness
(e) Individual speech
(f) Language Development
(g) Use of Individual Hearing Aids, Group Hearing Aids, and group speech (Teacher).

The reasons for emphasising pre-school learning are due to the fact that the reading ages of most profound hearing impaired school leavers are six to seven years behind their chronological ages and their speech is usually barely intelligible except to those who see them daily (DES, 1964, DHEW 1965, Conrad 1976). One factor which affects the amount of the language received and used by hearing impaired children in classroom is the use of group rather than individual teaching methods. Also socially, regular mixing frequently results in the acceptance of a hearing impaired child into a normally hearing group.

Thus early identification of deafness in children and early intervention methods, including language development should, be initiated as soon as possible.

C. Problems

Some of the problems encountered include some of the following:

(a) Late detection of the child's hearing loss
(b) Inadequate supplies of well trained and experienced teachers.
(c) The sparse provision of essential equipments, such as hearing aids.
(d) Teacher-pupil ratio in most cases is not propotional and thus individual attention needed to produce effective results is limited.
(e) Ignorance of the public of the existing facilities for educating Hearing Impaired Children.
(f) Media for instruction is still controversial for some countries/states are for oralism while others are for total communication.
(g) Lack of enough social workers, knowledgable in Special Education especially in providing a well balanced guidance to families of Hearing Impaired children at all stages, pre-school, school and post-school.
(h) Lack of servicing and maintenance facilities for repairing various aids like hearing aids and ear moulds, locally.
(i) Lack of well designed buildings which could accommodate small classes with additional provision for individual work away from visual distraction and unacceptable noise levels.
(j) Media for Instructing/Training the hearing Impaired to acquire speech as means of communication needs clarification.

Programme

This programme caters for the profound deaf whose age range is between 6 and 9+ years. It is also assumed that these children would have had three to four years of pre-school education as already noted within the rationale of the whole course under this programme are the specialist subjects which are subdivided into:-

Speech training which includes:-

(a) Individual speech

(b) Group speech

(c) Auditory training

(d) Language Development.

A - Individual Speech

Within Pre-School readiness should be covered so that a hearing impaired child is fully prepared and ready for Articulation Readiness training. Within infant classes, articulation readiness should be individualized so that each child can proficiently understand the words noting the position of the tongue at the tip front, bottom; middle, front or back; lips; etc.

After Articulation Readiness, Individual Speech is commenced, some examples are given below:-

I (a) Topic:- Ball

(b) Objective: To make the child to vocalize and use his voice purposefully and meaningfully.

(c) Content:- 1. This is a ball

2. Bounce the ball

3. b b b b b -------

(d) Resource materials: a ball
a boat
a bus
a balloon for feeling vibrations.

II (a) Topic: Sound 't'

(b) Objective: i. To teach the sound 't' as it appears at the beginning of words.

ii. To help the child with sounds he malarticulates and those he misses out.

iii. To encourage the use of good voice

II. (c) Content: Table, tea, tin
e.g. This is a table
This is a tin.

(d) Resources: i. a tin, some tea in a cup,

ii. Flashcards, sentence strips, strips of papers and feathers.

iii. Individual Hearing Aids.

B. Group Speech

(a) Topic: A poem - to be selected by the teacher

(b) Objective: i. To give pleasure in reciting a poem together

ii. To encourage the use of better voice

iii. To improve rhythm, fluency, pitch wherever possible

(c) Content: The poem noting voice rhythm.

(d) Resource materials: Black-board, containing the poem and the items being quoted in the poem.

Other examples on Group Speech could be on:

1. Vocalizing with any vowel,
2. Vocalizing (animal noises) + pictures
3. Making everyday noises e.g. a car - brrrrrr
a snake - ssss
a train - ts tf tf.
4. Rhythmic sentences
5. Dramatization, etc.

NB - The teacher should encourage the use of miming, music, play to enhance group speech.

C. Auditory Training

This should be done in stages as part of continuation on what has been done at pre-school level. Some examples are listed below:

(a) Discrimination of sounds using drums, whistle, tins, bell, alarm clock, tambourine, etc.

(b) Fast and slow sounds

(c) Sound intensity loud and soft.

(d) Sounds of animals e.g. bow-wow, moo, baa, etc.

(e) Sound of numbers, e.g. one, two, three, four, etc.

(f) Sounds of pitch - High and Low.

(g) Sounds of the environment, e.g. hooters of cars, noise of machinery, aircraft, shuffling of feet, banging a door.

C. (h) Voice duration e.g. long, short.

(i) Voice intensity - discrimination between loud and soft vowel sounds.

(j) Voice on vowel sounds

(k) Voice, quality, phrases, words, etc.

(l) Voice consonants, sentences, stories,

(m) Music.

Objectives of Auditory Training

(a) To help children discriminate between sounds and no sounds. (Refer topic 1).

(b) To help the children to distinguish between fast and slow tempos (Ref. Topic 2).

(c) To develop awareness of the difference between loud and soft (intensity) ref. topic 3).

(d) To give the children practice in listening to and discriminating between various animal sounds, Ref. 4).

(e) To help the children to distinguish between the numbers one, two, three in terms of sounds made by noise makers.

(f) To help the children to distinguish between high and low pitch; different environmental sounds, voice duration, etc.

Materials: drums, whistles, tins, horn, bell, alarm clock, tambourines, flute, etc.

D. Language Development

This will be based on the following headings and topics:-

(a) Directed activity, (this encourages sequential thinking).

(b) Story telling and comprehension

(c) Formal grammar lessons

(d) Language Development composition

(e) Vocabulary

An example of Directed Activity Lesson:-

(a) Topic: Combing and brushing the hair

(b) Objectives: (i) To provide an interesting situation to motivate children interest through doing.

(ii) To introduce new words and thus increase vocabulary.

(iii) To provide sequential thinking by writing the procedure in order.

(c) Content New words - a comb, a brush, paper stripes with sentences:

e.g. This is a comb
This is a brush

(d) Materials: a comb, a brush, hair, paper strips,

Hearing Aids:

(e) Activity: (i) Brushing of hair

(ii) Combing of hair

(iii) Building up sentences on the black board, e.g. we comb our hair with a comb.

Short hair is easily combed and brushed, etc.

(iv) Conclusion with the use of paper stripes containing the sentences.

An example of story telling and comprehension

(a) Topic A well known local story should be used, e.g. the race between the tortoise and a rabbit.

(b) Objectives: (i) To develop sequential thinking by telling a story

(ii) To teach new words

(iii) To develop continuous use of voice

(c) Content: (i) Telling of the particular story

(ii) New words e.g. a tortoise, a rabbit, run fast, run slowly, tired, sleep, etc.

(iii) Sentence construction using new words learnt.
e.g. The rabbit ran very fast.
The tortoise ran very slowly.

(d) Activity: (i) Dramatization of the story
(ii) Answering questions from the blackboard like filling missing letters in a word related to the story.

(e) Materials: Pictures of a tortoise, a rabbit,

Hearing Aids, etc.

From the above examples, Language Development could be done noting grammar, composition, and vocabulary.

As the children progress, more advanced work could be done on Language Development based on that pattern. However, outdoor visits as part of directed activity would stimulate interest, sequential thinking, and building of vocabulary "library".

Recommendations: (i) Further Research is needed to clarify the most suitable media for instructing/ training the Hearing Impaired Child to acquire speech as a means of communication.

(ii) African Curriculum Organization should be involved in Pre-school activities so that concrete base for future specialist subject curricula are developed in sequential stages from pre-school onwards.

References:

(a) Provisional Curriculum and Guidelines for the Hearing Impaired:

(i) Pre-Primary Phase I (Nursery, Infant and class 1) (1978).

(ii) Lower-Primary Phase II (classes 2, 3 and 4) (1979).

(iii) Mid-Primary Phase III (classes 5, 6 and 7) (1979)

From Kenya Institute of Education - Special Education Section.

(b) Syllabus in Total Communication for the deaf - Pre-Primary and Primary - Nigeria Educational Research Council 1978.

(c) Education of Exceptional Children and Youth by William M. Cruickshank and G. Orville Johnson. pp.343 - 388.

(d) Language for the Pre-School Deaf Child by Grace M. Harris.

(e) The Teacher of the Deaf Journals for March, May, July, September and November, 1976 - From the National College of Teachers of the Deaf Manchester.

CURRICULUM FOR THE VISUALLY HANDICAPPED

EARLY CHILDHOOD EDUCATION - AGE 3- 9+

Introduction

Visually handicapped children have demonstrated that they are more like those with normal vision than they are different from them. They have the same basic physical, intellectual, and emotional needs as all children. In addition, they have some special needs caused by their visual impairements. Most of them can be assured of becoming mature, independent, contributing members of society when provided with competent eye care good environment and, above all, suitable educational programmes.

Definition as to who is blind:

A blind child has always been defined as "one who is too blind to be able to read the ordinary school books used by children."

From the educational point of view there are three grades of blind or partially sighted children. They are:

(a) Those who have no perception of light or whose vision is so defective that they cannot be taught by visual methods.

(b) Those whose vision is so bad that they cannot be properly taught in an ordinary school, but can see well enough to be taught by visual means. These children are educated in a school for partially sighted.

(c) Those children suffering from such conditions as progressive myopia (a type of eye disease), who though they can read ordinary school books, should not do so on account of the possibility of ruining their eyes.

We are only concerned with the children in the first group. The causes of blindness in this group may very roughly be divided into:-

(a) The results of congenital syphilis: This is often responsible for cases arising during early life. Usually this type of blindness results from damage of the cornea or retina.

(b) Congenital defects such as cataracts and hereditary eye diseases.

(c) Accidents

(d) Eye diseases due to infection and general constitutional conditions. These include results of diseases such as small pox and measles.

This Curriculum/Syllabus is meant to complement the established curriculum/syllabus meant for the regular schools. The blind child with extra help could develop his intact senses and cope beautifully with most of the learning experiences meant for seeing children.

The syllabus/curriculum prescribed here in shows the different aspects of what are "special" in blind education. The teacher should other wise use the established regular syllabus/curriculum for his/her school district etc.

Apart from visual impairement, the blind child is as normal as his sighted peers. A well followed structured programme could compensate for the visual loss.

It is highly essential that a child who is born blind must have the opportunity of attending a nursery school where adequate pre-reading and writing activities are provided, and the child spends a minimum of two school years (academic years) before qualifying for primary education.

Pre-Reading Activities

What constitutes "Reading Readiness" for the child who will need to use braille as his medium of literacy? As for the sighted child, a vital consideration will be his level of language development and the need not only to be able to read and write but to have something to read and write about. But there are a number of additional factors to consider in the case of the child using braille. He will need his own kind of pre-reading programme giving attention to communication through language and first-hand experience in exploring objects.

The blind's association of words with actions, objects and events, may need particular attention before he is ready to link the symbols of braille characters with spoken words. The pupil who is to become a proficient braille reader needs to develop skill in the tactile discrimination of small forms as well as sufficient use of language to appreciate meaningful content presented in the code.

Whatever form the visual handicap of the pupil manifests, the complex process of reading for him, as for other children will be rooted in speaking and listening. As for all children his ability to develop meaningful language is likely to be enhanced by listening to stories, re-telling them and acting them.

Braille Reading Schemes

Finding appropriate material in braille well suited in content for beginners has posed a problem. However, it was felt that a braille reading scheme for beginners must give real attention to the vocabulary that children knew and used.

Braille Reading as the Pupil Progresses through School

The young reader who has completed a specialized reading scheme can progress to a transcribed reading scheme and to a variety of reading material since it is essential to remember that braille is not literacy but rather represents the gateway to literacy in providing the means by which the blind pupil can obtain information and derive enjoyment from books.

Play Activities leading to number work

Inability to see shapes clearly reduces opportunity to be aware of number groupings. Nevertheless, through play, objects could be handled and examined. Play which begins at home and continues without much noticeable break into the early school years can offer ways of helping the visually handicapped child to appreciate the code of relationships which underline essential mathematical concepts.

The building up of a programme involving an increasing awareness of numbers, shapes, and patterns should be an enjoyable exercise for both teacher and pupils. Many of the activities relate well to familiar play or domestic situations. The principles of one-to-one correspondence can be demonstrated by putting an egg in each egg cup when setting a table, then a knife by each plate. The idea of sets is now developing.

Capacity and Volume

The beginning of an understanding of capacity and volume will start to form as a result of such activities as sand and water play with the filling and emptying of containers of different sizes. Simple comparison of lengths can be shown by child measuring different fingers and books and desk lengths.

Although many of the activities described appear comparable to those undertaken by full sighted children, the teacher with a visually handicapped child needs to give particular attention to some aspects of the work. In devising and selecting material for activities, the teacher must bear in mind not only the goal of the activity, but its manageability in terms of the child who sees little or nothing. Control of material could sometimes be very difficult.

CLASS	TOPIC	OBJECTIVE	CONTENT	ACTIVITIES, METHODOLOGY AND REMARKS
Pre-Primary I	Tactile Discrimination	Children will be able to:- (a) Put all objects that are similar together	Sorting of objects Putting all objects that are similar together e.g. stones from beads, and counting them. The use of the abacus	Fill a container with objects of different of sizes, shapes and textures. Let the children sort them out and count them e.g. those that have the same characteristics should be put in one container.
Pre-Primary I	Increased skill in tactile discrimination	(b) Put all objects with the same shapes together.	Matching of shapes Matching objects of various sizes and shape to the shapes on the shape board e.g. Triangle, squares, circles, rect-angles etc.	The shape board should match the shapes that the child has e.g. the triangle block should fit into the triangle shape on the board, etc.
Pre-Primary II	Exploring objects	Children will be able to associate by touch smell, taste same objects	Association of words with actions objects and events e.g. rough and smooth; jump high; rub mum's face. Taste, different foods, smell different things etc.	Develop games and puzzles which give children tactile stimulation and continue association.

CLASS	TOPIC	OBJECTIVE	CONTENT	ACTIVITIES, METHODOLOGY AND REMARKS
Primary I	Tactile discrimination of textures	Children will be able to differentiate different surfaces, by touch, smell and taste	Matching of different textures.	Children continue with games until they are able to match materials of similar surfaces. Simple "winner takes all game" use many objects in which every two has the same surface. Mix them up. Let the children fill the objects and bring all the pairs that have the same surface together.
Primary I	Daily living skills	Children will be able to dress, eat, and use the toilet correctly.	(a) Sitting arrangement, holding cutlery. Taking food and eating without soiling one's clothes. (b) Identifying different wearing materials and putting them on and practise using toilets.	Let children practise with the following (shorts, shirts, shoes, trousers) (for boys), (ear rings, necklesses, gowns (for girls).
	Daily learning skills	Children will be able to know how to use their type of toilet properly.	(c) Different toilets, e.g. water system, pit laterine, should be introduced.	Discourage the use of potty as child grows up.

CLASS	TOPIC	OBJECTIVE	CONTENT	ACTIVITIES, METHODOLOGY AND REMARKS
Primary II	Measurement through play activities, and introduction of few letters in braille	Children get mathematical concepts of volume, weight, lengths. Children will be able to recognise a few letters in braille.	(a) Using sand and water measure e.g. with bottles or cups. (b) Letters in braille	(a) The relevant vocabulary should only be carefully introduced. (b) Measurement of different fingers, books, desks lengths. (c) Fill the bigger containers with smaller ones. Introduce gallons and pints. Children should differentiate the weights e.g. (d) The raised dots at this stage should be large
Primary III	Further mathematical concepts and introduction of the remaining letters of the alphabet	(a) ability to recognise sets and sizes (b) all letters of the alphabet in braille	(a) Usage of: Buttons and small objects mounted on cards for matching numbers. (b) The use of saucer, tea cup and tea spoon as example of set. (c) Recognizing ordinary braille letters.	(a) Children should be encouraged to set the table without much help from the teachers. (b) get children to be very familiar with grade I braille ready for grade II

CLASS	TOPIC	OBJECTIVE	CONTENT	ACTIVITIES, METHODOLOGY AND REMARKS
Primary III	Braille Reading introduction to writing.	Children learn to use symbols and contractions in braille.	(a) Introduce symbols e.g. A, B, etc. Contractions like "and" "the". (b) Introduce pronouns, conjuction, word signs and abbreviations.	Grade I and II braille should be interwoven. Make children read simple books in braille and use braille in number work.
Primary IV	(a) Listening skills (b) Use of braille in all written and reading work.	Children develop listening skills and show ability to use braille in all written and reading work.	Prototype materials consisting of additional tape-recorded stories, small models of villages and large soft dolls representing the characters in the stories. (Nursery rhymes, singing games and action songs. Reading of embossed maps and objects	Make use of tape recording music or radios during the session. Use embossed maps and objects.
Primary IV	Proficiency in writing braille and also in reading Braille	Children get more proficient in the use of braille for school subjects.	(a) Writing of braille (b) Reading of braille	Sometimes Physical Education Programme should be planned with this goal in mind: (a) larger muscles movement (b) games involving imitative movements including "Left to right movement of arms and hands. (c) Practice with spoken work

PHYSICALLY HANDICAPPPED (CEREBRAL PALSY)

AGE (3 - 6 YEARS)

General Introduction

There are several kinds of physical handicaps, most of which can clearly be seen or can clearly be discernable largely because of their nature. Other types of handicaps are difficult to detect and identify especially in their early stages for the reason that they are related to human growth and development. The following are classically known handicaps, blindness, deafness, physical handicaps (polio, cerebral palsy), mental illness and mental retardation.

Every kind of handicapping condition presents different socio-economic and cultural problems in different societies and at different times. In this paper we shall attempt briefly to survey the problems of cerebral palsy. We shall focus our attention on the less severe cases.

Definition:

Cerebral palsy is the term used to describe a group of non-progressive disorders occuring in young children in which impairement of motor function is caused by damage above the brain stem. Basically it means children with cerebral palsy have some difficulties in motor control and may have other problems associated with the condition. Such as mental retardation, epilepsy or hearing impairements. There are three types of cerebral palsy namely

(a) Ataxia, in which the victim lacks balance and have poor spatial relations;

(b) Spasticity i.e. the stretch reflex interferes with directed movement of parts of body;

(c) Athetosis - where involuntary movements of parts of body, hands and arms are observable characteristics.

Causes:

Cerebral Palsy may be caused by a number of factors,

(a) Congenital;

(b) Infection that takes place during infancy and childhood (e.g. Meningitis and cephelitis)

(c) Traumatic experiences resulting from accidents; e.g. car accidents;

Researchers agree that 75% of cerebral palsyed children are below average intelligence, and consequently have educational problems - reading, writing and activities which require coordinated activities.

Incidence/Prevalence:

The incidence rate of cerebral palsy is 58% and 67% in UK and USA, respectively. In Africa it is possible the percentage could be much higher than the two western countries which have better and more advanced medical facilities. Factors such as level and quality of health services, standards of living and climatic conditions would be additional contributing factors congenital and accidental abnormalities For example, in most African villages traditional midwifery still play important part in contributing to accidents. The World Atlas of the child indicates that infact mortality in Africa (for the ages range of birth to 12 months) is still the highest in global reckoning - compare 10.8% per annum in Africa to only 1.8% per annum in Europe!

Rationale:

This curriculum is primarily aimed at parents of the physically handicapped (cerebral palsied) children between the ages of 3 to 6 years (the pre-school age) and the teachers of these children who have to prepare them for primary school education. The programme is intended primarily for the mild less severely handicapped (cerebral palsied) children.

The rationale is that early identification and intervention by multidisciplinary team, would lead to minimizing or alleviating the child's problems and handicaps. Thus helping him to integrate comfortably into formal education and eventually into the community.

Objectives:

1. Foster learning ability in a child

The objective of what follows is:

(i) To produce a programme that will foster, develop learning readiness and ability, skills, in the young P. H.

(ii) To achieve this, one needs to focus on parental involvement, providing parents with adequate information and advice on the child's handicaps.

(iii) Thus, the approach would be one of building up a <u>partnership</u> between parents, teachers, and other professionals (Social Worker, Health Community Officers, P diatrian) Involvement in the community, health services.

TOPIC	OBJECTIVES	CONTENT	ACTIVITIES	MATERIALS AND RESOURCES	EVALUATION
Physical Competences	Ability to carry out (a) All the gross motor skills successfully	(a) Developing gross-motor skills	Walking, pushing objects, pulling, skipping, dancing, clapping, flinging, etc.	toy cars, boxes, locally made trucks (toys) ropes wooden clappers, paper flags improvised rattlers	Are children able to carry out all the gross motor skills successfully?
	(b) All the fine motor skills efficiently.	(b) Developing fine motor skills	Using fingers and thumbs to manipulate objects, e.g. threading beads, picking bottle tops, chalk, small balls, using grayons.	beads, threads, bottle-tops, small balls and large balls, sticks, strings, crayons, chalks coarse paper	
	(c) Coordinate visual sense properly.	(c) Developing mental visual coordination	Sorting object by: (a) as colour (b) texture (c) size (d) shape (e) weight (f) sameness of objectives	Objects of different colours, materials of different textures, shapes, size, weight, etc.	
	(d) differentiate between and identify: hot or cold, wet and dry, hard and soft smooth and rough, thin and thick.	(d) Developing tactile skills	Differentiating between and identifying the following (a) hot and cold (b) wet and dry (c) hard and soft (d) smooth and rough (e) thin and thick.	Water, clay, sand, sand-paper, wet cloth, dry fibre, soft balls, ballo-ons hand balls or stones, cotton wool, thin paper and thick piece of wood, velvet materials	

TOPIC	OBJECTIVE	CONTENT	ACTIVITIES	MATERIALS AND RESOURCES	EVALUATION
	(e) Carry out all auditory skills successfully	(e) Developing auditory skills	Identifying direction of sounds, identify different sounds, associating sounds with objects, differentiating between loud and soft sounds, identifying persons by voice	bells, tapped sounds, familiar human voice of animals, and objects bells rattlers, soft musical instruments etc.	
	(f) Differentiate taste by tasting.	(f) Developing tastes discrimination	Testing new food differentiating between tastes, eating a variety of foods	Ripe mangoes, sour milk, sugar, lemons oranges and any local foods.	
	(g) Children will be able to recognize things by odour. Recognize foods by Aroma.	(g) Improving olfactory discrimination.	Smell different things with different odour, smell different foods with different aroma.	Different kinds of flowers, of food and different kinds of perfumes.	
	(h) Carry out sensory skills successfully	(h) Developing sensory motor skills	Playing with large and small blocks, manipulating construction toys, duplicating fingers constructed with blocks, reproducing designs, reproducing vertical lines - with finger, with chalk on board, with large crayon on news print.	Chalk, blocks, toys, crayons newsprint, brush, etc.	

TOPIC	OBJECTIVES	CONTENT	ACTIVITIES	MATERIALS AND RESOURCES	EVALUATION
Personal, and social competences	(i)At the end of these units children will be able to form all self help skills successfully.	(a)Developing self-help skills	Using the toilets, dressing, using spoon with skill, eating a variety of foods	Spoons, different types of foods, different articles of dressing toilet rolls, wash hand basins, soap, etc.	Are the children able to perform all self help skills successfully?
	Adjust clothing wash hands, face feet, brush teeth correctly.	(b)Developing self-care skills	Adjusting clothing, learning to wash hands, face, feet, brushing teeth	Clothes, water, soap, basin, tooth brush, tooth paste.	"
	(i)Adjust to situations which fosters good mental health.	(c) Fostering mental health	Separating from home, tolerating a group setting, adjusting to daily routines accepting reasonable goals, accepting external control of behaviour, developing tolerance, adjusting to limits.		
	to show adjusted behaviour to social requirements	(d) Adjusting behaviour to social requirements	Recognizing and accepting authority, adjusting to school and regulations, learning basic rules of safety, beginning to use skills of courtesy, improvising manners, learning to participate in field trips.		Are children able to show adjusted requirements behaviour?

TOPIC	OBJECTIVES	CONTENT	ACTIVITIES	MATERIALS AND RESOURCES	EVALUATION
Cognitive Proficiency	Ability to use language for communicative needs involving recognising understanding participating, etc.	(a)Developing and using language.	Communicating needs, recognizing and naming familiar objects, understanding limited directions participating in singing song and mimicking and pantomining, engaging in playhouse activities knowing and repeating his first and last names and age and residence. Recognising and naming primary colours. Listening to short stories rhymes and records. Identifying objectives in pictures.	Articles in primary colours, objects in pictures etc.	
	Show acquisition of number concept. Sizes and quantity.	(b)Developing number concepts.	Counting stones, bottle tops, sticks of different sizes short and tall long - quantity of water, etc.	Large and small stones bottle-tops, stories, made-up by teachers containers of all sizes, water and sand.	
	React or show environmental awareness, in weather, time allocation, passage of time.	Increasing Environmental Awareness.	Discriminating between different weather, learning to orient self to school and play-ground, learning to adjust behaviour to different environmental requirements, developing some sense of the sequence with events associated with gross time allocation, developing the concepts that time passes.		

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RECOMMENDATIONS

Future Action

In addition to the above selected areas, the group would like to recommend the following areas for African Curriculum Organization's future curriculum workshop:-

A. Mentally Handicapped (MH)

Other than the slow-learners whose I.Q. is between 70-50, consideration should be given to:-

(i) Borderline who are educable MH. (IQ between 85-70)

(ii) Severely MH who are trainable (" " 50-20).

(iii) Profound MH. These are institutionalized (IQ below 20 and cared for.

Multiple handicapped e.g. MH who are also blind.

B. Visually Handicapped

(i) Partially sighted whose field of vision does not enable him to make use of ordinary print, and affects his mobility. (visual acuity of 2/20-20/200)

(ii) Multiple handicapped e.g. deaf-blind.

C. Hearing Impaired

In this group consideration should be given to the partials whose hearing loss is noted below:

(i) Mild hearing loss (15 - 30 decibels)

(ii) Hard of hearing (30 - 60)

NB. Decibles are based on American Standard Association (ASA).

D. Physically Handicapped

Other than the Cerebral Palsy, the following could be considered, although some are very rare:-

(i) Erb's Palsy - Paralysis of the muscles of the shoulder, arms, etc.

(ii) Spina Bifida - Paralysis of the spinal cord and thus affecting nerve fibres along the vertebrae column.

(iii) Poiomyelitis due to infection.

(iv) Metabolic Disturbances e.g. Muscular dystrophy

(v) Multiple handicapped.

E. Programme for those who handicap occurs at adulthood due to accidents, diseases, etc.

F. Emotionally Disturbed

G. Intellectually gifted.